THE SCHOOL REVIEW

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Educational News and Editorial Comment

THE VALUE OF STRAIGHT THINKING

When a great business corporation pays for advertisements lauding study and high-grade scholarship there must be a sound reason for it. The Western Electric Company has been printing in college papers all over the country some remarkably effective advice to college students. Two examples are quoted in full. These appeared in the *Daily Maroon*, a publication edited and managed by the students of the University of Chicago.

THIS JUNIOR IS LEARNING TO BE A BANKER

If you are putting in three hours a day in the electrical laboratory, don't be surprised twenty years later to find yourself promoting a public utility bond issue. Or if you start in newspaper work, as like as not later on you will turn to manufacturing or advertising or law.

You don't know where opportunity or inclination will lead you. This fact has a great deal to do with your work at college—not so much the things you learn as the way you learn them.

Don't think of education as a memory test in names and dates and definitions. That knowledge is important, but only as an incidental. Of far greater value is the habit of getting at underlying laws, the basic principles which tie facts together.

The work of the pioneers in electrical experiment, at first glance confusing, is simplified once you realize that much of it hinged upon a single chemical phenomenon, the action of the voltaic cell.

Analyze your problems. Look for fundamentals. Learn to connect a law or an event with what went before and what comes after. Make your education a training in logical thinking.

This ability to think straight, whether acquired in engineering or arts, is the biggest thing you can get at college. Its aid as a means to success applies equally to whatever work you take up—since mental processes are the same everywhere. It is the power which enables a mechanic to become sales manager, a lawyer to head a great industrial organization. Develop it, if you would be ready when your big opportunity comes.

DOES IT HURT MUCH TO OWN ONE?

There is a campus saying that if a man has won a Phi Beta Kappa key or other honorary fraternity emblem, he had better keep it out of sight when he goes looking for a job.

Still there are men who ranked high at college and who haven't turned out altogether failures in life. Strange though it may seem, more and more such men are winning positions pretty high up in the commercial and industrial world.

Call it chance. Say they succeeded in spite of their scholarship. But, seriously, is it too much to trace a logical connection between a man's proficiency in getting ready for his vocation and his success in that vocation?

Surely it is common sense that the better grip you get on your work now, the more easily you can handle the big jobs later on.

This question of scholarship is far bigger than whether you like a certain emblem and the men who wear it. The value of the emblem is what it stands for—knowledge and the ability to think straight.

Develop this ability where and how you will, but develop it—because in the world of affairs they reward it liberally.

The text of these advertisements is reinforced by such side comments as these:

The executives of this company have been chosen from all branches of the organization. It doesn't make much difference where you learn to think straight, so long as you learn.

Maybe it's against all campus tradition, but some men who stood high at college and who entered this company years ago have since become its executives.

SOCIAL STUDIES IN THE HIGH SCHOOL

The Vocational Education Association of the Middle West has published a pamphlet containing concrete suggestions and sample lessons for a course in social science. The titles of some

of the lessons give an idea of the scope of the course. Lesson 1 is entitled "Getting a Job" and is outlined in these divisions:

1. Why boys and girls should seek jobs where they can learn and advance, even though the initial wage is low.
2. Statistics as to wages in various industries.
3. Opportunities to rise in large corporations and how they are taken advantage of.
4. Employment agencies—good and bad.

Then follow lessons and outlines like these:

EVOLUTION OF THE MODERN INDUSTRIAL ORGANIZATION

1. Hunting economy.
2. Agricultural economy; the feudal system and modern agriculture.
3. Rise of towns and trade and craft associations.
4. The domestic system.
5. The factory system.

Bring out increasing prosperity of labor plus increased dependence; and increased change of general suffering if all parts of society do not function co-operatively. Illustrate by general strike affecting a necessity like coal. We pay for our advanced civilization by a tax on our social qualities. Either capital, labor, or the public can precipitate a crisis.

IMPORTANCE OF CAPITAL

1. Capital and labor in one person—farmer.
2. How a corporation is organized and gets its capital; stocks and bonds; reinvestment of profits.
3. Watered stock.
4. Rewards to capital: profits and dividends, rent, interest.

ECONOMIC ORGANIZATION

1. Business men's associations and corporations, organized for profit, which may come in two ways: increasing efficiency and output, or raising prices and keeping down wages.
2. Organizations of labor, designed to raise wages, shorten hours, and regulate discipline, but not to increase efficiency and output.
3. Special aims and methods of trade union, syndicalist, Bolshevist, I.W.W., socialist, anarchist. Learn to discriminate.
4. Labor warfare and its results; the strike, the lockout.
5. Methods of co-operation between capital and labor.

As a sample lesson the following list of questions is suggested in connection with Lesson 1, "Getting a Job."

Ask the following questions of as many members of the class as the hour permits and encourage free discussion by the class of all points raised: What are you going to do when you are a man? What makes a good job? Have you a good job? Are you in a job where you are learning something? Can you be proud of your job? Does it help you physically? Does it make you think? What requirements does it make of a successful worker? What wages do you get? What wages can you get if you stay on this job? What are the other people in your shop getting from it? What has become of the boys or girls you know who have had this job? Is there a good chance to advance from it in your own shop? To what? Does it prepare you for anything else outside? Why is it so important to get the right sort of job at the start? Does this necessarily mean to get the best pay at the start? Are there good jobs in your factory—good for boys—that you could get? Is it easy to get jobs as you get older? How do you go about getting jobs? Can you show whether schooling has helped people you know to advance in their work?

As the class answers and discusses these questions, lead them to think along the lines outlined in Lesson 1.

Copies of the pamphlet can be secured for twenty cents each from L. W. Wahlstrom, 1711 Estes Avenue, Chicago. The full title is *Report of Committee on Teaching Social Science in High Schools and Industrial Classes.*

COLLEGE ADMISSION IN THE SOUTHERN STATES

The Carnegie Foundation, through its secretary, Dr. Clyde Furst, has made a study of the entrance requirements of the colleges belonging to the Association of Colleges and Secondary Schools of the Southern States. The findings of this investigation are printed in a pamphlet which can be secured from the Carnegie Foundation, 522 Fifth Avenue, New York City.

Dr. Furst reports that 35 per cent of the matriculants for the class investigated, namely, the Freshman class in liberal arts entering in the autumn of 1921, were women. Of the total group of 8,826 Freshmen, 1,001 had not graduated from a secondary school; 8,250 entered college on certificates, 229 on the basis of certificates and examinations, and only 67 on the basis of examinations alone. The prevailing requirement is fifteen or more units of secondary-school work, but 1,439 students had more than sixteen units.

The following paragraphs give the details of the offerings in preparatory subjects:

The distribution among the various subjects of the numbers of entrance units offered by the matriculating students bears out the preceding paragraphs. The offering of four units in English by 4,921 students is characteristic of the South and West; northern and eastern institutions are apt to give but three units' credit for four years of work in English. That 1,900 students should have offered four units of Latin is characteristic of the subject. The offering of four units in history by 1,787 students and of four units in mathematics by 1,136 students may be explained either by unusually extended courses in these subjects or perhaps by some such generous definition of a unit as probably underlies the offering of 4.5, 5, 5.5, 6, and 6.5 units in a single subject by 103 students.

The opposite end of the scale might be called the area of hospitality. The offering of 6,560 half-units, particularly in the sciences, is very questionable. The hundred miscellaneous subjects in which 2,640 half-units were offered include arithmetic, chorus, debating, glee club, penmanship, poultry, and war gardens, as well as Arabic, Chinese, Japanese, Norwegian, and Russian. Frequently these half-units represent a combination of two subjects, sometimes of three or four. A score of students also offered fragments of units as small as one-third, one-fourth, one-fifth, or one-tenth of a unit. The number of single units also, 17,081, is large. By far the larger proportion of the offering, however, is evidently made up of substantial courses of study of two or three or four years' duration in the same subject.

STUDY ROOMS IN EVENING SCHOOLS

In a bulletin published by the State Board of Education of Connecticut, Mr. A. F. Mayhew, assistant superintendent of schools in New Haven, gives an account of an aid to study which might advantageously be established in many places. The fact is that relatively few pupils in public schools have ideal conditions for study at home.

Superintendent Mayhew's statement is in part as follows:

A distinctive feature of the evening schools of New Haven is the study rooms for day-school pupils maintained by the board in the elementary schools. These rooms have been in operation for several years and have proved of inestimable value to the many pupils who attend. The rooms are located in districts largely populated by non-English speaking people where home conditions are not always conducive to home study. It was to give these pupils a chance equal to that of other children and an opportunity of doing their home work under suitable conditions that the study rooms were opened in the evening schools.

A number of such rooms are maintained in the New Haven evening schools. Children from the seventh and eighth grades are permitted to attend as well as pupils from the high school. These classes are under the supervision of regular day-school teachers and principals. Necessary paper is furnished the pupils, and reference books, encyclopedias, maps, and charts are available. The schools open at 7:00 P.M. and continue until 9:15. Pupils in the grades are allowed to leave at 8:15 or 8:45. The younger pupils are urged to complete their work as soon as possible in order that they may return home early. The older pupils remain until 9:15 usually, unless they have completed their required work earlier, in which case they are dismissed with the younger pupils.

Where two rooms are maintained in the same building the pupils are divided according to grade, the younger or elementary pupils working in one room with an experienced grade teacher and the high-school pupils in another room with a principal as the supervisor.

Each pupil attending the study class takes with him all the textbooks and materials required for the preparation of his lesson. If he has not enough work to keep him busy for the full session, the pupil is urged to have with him a book in which he is interested, and whatever time remains, after lessons are prepared, may be devoted to silent reading. By careful supervision of this reading material, showing an interest in the child, and giving an occasional word of suggestion, a better taste for reading may be engendered. By noting the subjects selected by some for this reading, we have been able to discover the child's real interests, and thereby assist him to correlate his own with other interests.

Varied groups of pupils make use of the study rooms. First comes the ambitious child who takes advantage of every opportunity for improvement; and second, the child from the extremely poor home which offers no accommodation, either in space or comfort, to the student looking for a quiet spot in which to do his home work. This year an increased number of the latter type sought admission to the study classes, because of the exceptional labor conditions which resulted in unusually overcrowded, poorly-lighted, and insufficiently-heated rooms. Possibly half the class is made up of children indifferent to their class standing and manifesting little interest in anything. These are urged by their teachers to join the study classes. In most cases the child only has to be approached, but in some instances the parent is also consulted, the study-room plan explained, the advantage to the child made clear, and his co-operation solicited. In addition to the grade pupils, there are some first- and second-year high-school students who take advantage of the study rooms and are very regular attendants.

Teachers conducting study rooms should be capable of quick adjustments and should be able to assist with work in the grades and with work in most of the high-school subjects. For the most part since the first study room was

opened grammar-school principals have been selected to take charge of these rooms.

The high-school room requires a teacher of rather broad experience as the work being done by the pupils includes practically all the courses offered in the high schools. With an average of about thirty-six pupils each doing different work the task of the supervisor is not an easy one. While it was not originally intended that the supervisor should also be a tutor, nevertheless that situation has generally developed so that at present his entire time is given to helping those who need assistance.

The study room appeals to me as one of the most worth-while features of our evening schools. The time in the day school does not admit of much, if any, supervised study. The day is too short, the curriculum too full, and much of the preparation of lessons must be done at home. Anything that will bring an uninterested child more closely into sympathy with his school life, that will attract him to the business of his small world, is good, and this is what the study rooms may do. The opportunity is great for the ambitious, but the study room is a boon to those living in cramped quarters.

Home work cannot be satisfactorily done unless conditions suitable for undisturbed study are supplied. Such conditions are not usually found in the cramped homes in crowded districts. Homes in such districts are not usually well heated, lighted, or ventilated. All these conditions do exist in the study rooms, making them ideal places for study. However, the benefit of supervision is also of great assistance to the pupils who attend. A pupil not understanding his work is quickly set right, thus saving him time and failure.

It is of even greater value to those children allowed by indifferent parents to spend their evenings on the streets, getting into undesirable company and bad habits.

MATHEMATICS IN THE HIGH SCHOOL

The high-school research bulletins sent out by the Los Angeles city schools continue to reflect the stimulating work carried on by Professor Bobbitt in arousing the high-school teachers of that city to discuss the reorganization of their curriculum. The introduction of the bulletin dealing with the objectives of mathematics teaching may be quoted as a typical illustration of the kind of thinking which these bulletins stir up.

It is probable that no department of the high school has a more difficult or baffling problem of reorganization of its activities than the mathematics department. Let us illustrate.

The city has decided that commercial students going into business do not need algebra, geometry, or trigonometry for general, cultural, or disciplinary training.

Since this is a large and representative group of students, it appears to follow, if this decision is correct, that students in general do not need algebra, geometry, or trigonometry for general, cultural, or disciplinary training.

The city has decided that commercial students need full and intensive training in the mathematics of their vocation.

This probably typifies the need of every vocational group. It needs full and intensive training in the mathematics of its vocation. But the mathematics will differ greatly from vocation to vocation and must be administered, therefore, according to the special needs and as a part of the vocational training.

The vocational mathematics for commercial students is administered in this city as a vocational course in the commercial department.

This appears to represent the proper placement of all vocational mathematics courses, not in the general department of mathematics, but in the appropriate vocational department.

It is the belief of the writer that these decisions of the city as regards the mathematics of the commercial students are educationally correct and that the deductions that appear naturally to follow are educationally correct.

If this is true, then algebra, geometry, and trigonometry have justifiable place in the curriculum only when they are necessary portions of vocational courses; and in such cases the specific content is differently dictated by different vocations.

These statements are equally applicable to those who finish their schooling with the high school and to those who take additional years of work in college. Neither the length nor the place of one's training dictates one's needs.

In the foregoing statements there is one possibility of error. It may be that commercial students *do* need the disciplinary values of algebra and geometry, but that they must forego them because of the exigencies of the time schedule; that those who take the longer training of both high school and college need not forego them and therefore may secure the disciplinary values. There is, however, no proof of the disciplinary values. The general intelligence quotient does not seem to be raised by a study of algebra and geometry; and one, therefore, is not given greater power to think in general outside of the mathematical fields.

The college-entrance demand is largely dictated by the disciplinary hypothesis—without proofs. In far larger measure, however, it is held to *for selective purposes*. It is not that the students need algebra and geometry, but that the colleges need a selected body of students, and algebra and geometry have been, aside from classic languages, until recently, the best selective devices. So long as the colleges demand them for this purpose, the high schools must administer them for this purpose. They should know, however, that they are doing it for the good of the colleges and not because they are demonstrably serving their students.

COLLEGE ENTRANCE EXAMINATIONS

The *New York Evening Post* gives an interesting summary of a personal experiment conducted by a preparatory-school teacher:

Perhaps it is not altogether a bad sign that school and college officers are trying on themselves the situations they impose upon others. Last year Morgan Barnes, of the Thacher School, California, a Harvard man thirty years out of college, took incognito the examinations of the College Entrance Examination Board, just to see what they were like. He doesn't say so himself, but the records of the board show he made the highest ratings of all who took his set of examinations except in one subject.

What Mr. Barnes says about the College Entrance Examination Board, therefore, is more interesting than if it came from other schoolmasters. Writing about his experience in the Harvard *Alumni Bulletin*, he says: "In one case I was penalized three points because a rather carefully and entirely defensible answer failed to accord with the one selected and agreed upon by the readers after conference. In another instance the reader wrote: 'The correct translation is——,' giving an absolutely incorrect rendering, and in reply to my challenge of his accuracy begged to be excused from 'controversy.'"

In the main, however, Mr. Barnes says he found the penalties imposed as reasonable as "such disabilities can in their nature be." He concludes that schools should cease to make the College Entrance Board examinations "the chief end of preparatory study and teaching," and that colleges should permit first-hand information from the students' teachers to supplement generously an unfavorable numerical rating.

INSTRUCTION ADAPTED TO GROUPS OF DIFFERING ABILITY

In the Manual Arts High School in Los Angeles an attempt has been made to adapt instruction in English to the needs of various classes of students. The conditions in this school are somewhat unusual. Each term the English department is inundated with new students from all parts of the United States, with all types of preparation. Los Angeles is a gay playground to which pleasure-seekers and ease-lovers come, not to study, but to take the sun in their "jitneys." To maintain the very modest standards of the department and to provide for ordered growth in expressional powers, while not neglecting the slow cultural growth which comes from live contacts with good literature, a system of graded instruction has been worked out. This system was devised also to provide for the marked individual differences which are presented each year by the entering class.

The entering class has from 450 to 500 students. They bring promotion cards ungraded as to subjects of study, except in those cases in which the work was unsatisfactory. A check opposite a given subject indicates unsatisfactory work.

On the basis of a check, or the absence of a check, entering students are immediately separated into "express" and accommodation" classes. Twelve to eighteen classes of each grade are organized each term so that it is possible to run parallel "express" and "accommodation" classes throughout the periods of the day, and thus no insurmountable difficulties are encountered in transferring a student from one group to the other after tests or class work have demonstrated the advisability of such transfer. The "express" classes of the mentally more alert and better prepared enrol from eight to ten more students than the "accommodation" classes. Twenty-five in the "accommodation" classes is our ideal, but overcrowding now compels classes of twenty-eight to thirty. The "express" classes range from thirty-eight to forty. The speech training and form work are identical in the two types of classes; the difference, so far as the course of study is concerned, is in the extra amount of school and home reading required of "express" sections.

In addition to "express" and "accommodation" groups, organized on the basis described, there are special classes encouragingly styled "opportunity" groups. These are for students markedly below the average of the "accommodation" groups.

An "opportunity" group meets five times a week, with or without credit at the option of the teacher depending on the accomplishment of the individual. One such type of class is for those inadequately prepared in English form and in methods of self-help and study as well as for the abnormally slow or mentally deficient. Borderline cases and occasional morons add to the complexity, if not the gayety, of this class. Individual supervised study, using the problem-project method, is pursued. Some members of the class continue in this group through their school career; others leave when they attain minimum essentials for a given grade with power of self-help and speed sufficient to keep up with a normal class. The school never enrols more than twenty students in one

of these classes. There are now two such "opportunity" classes. One is a straight development group of sixteen, all of whom will probably continue throughout their entire English course in this class; the other is a mixed group whose subnormal members will be transferred to the development groups as soon as it is certain they belong there.

There are other special classes known as "adjustment" or "make-up" groups. One such is in penmanship and is designed to give practice in legible penmanship and neat written form. No outside practice or preparation is required. Spelling, word study, and paragraph writing give content and make this drill class purposeful as well as creatively interesting. No credit is given in any "make-up" class, though the student may pursue his regular course if he is assigned to only one "make-up" in a given term. If two or more "make-ups" are taken, the student automatically stops his regular course until he has removed these conditions, unless the head of the English department grants special permission to continue.

Other special classes are organized in spelling, oral reading, sentence study, oral composition, and the like. None of these is to be thought of as a matter of separate interest, except where the student's individual needs call for reinforced instruction in that particular line. So far as possible, the whole scheme is one of adaptation of instruction to the individual equipment and needs of students.

MARY C. TRUMMER
Head of the English Department

News Items from the School of Education of the University of Chicago

ART EXHIBIT DURING THE SUMMER QUARTER

It is the policy of members of the Department of Art Education of the University of Chicago to perfect themselves in the technique of the subjects which they teach. Evidence of this is shown by the honors recently conferred on them in important exhibitions. Mr. Sargent had two paintings in the Winter Exhibition of Chicago Artists. Another painting, entitled "The Morning Shadow," has been purchased by the Rochester Atheneum, Rochester, New York. Miss van Pappelendam had four paintings in the Twenty-sixth Exhibition of Chicago Artists, and two of her paintings were in the Thirty-fourth Annual Exhibition of American Painting. Mr. Whitford exhibited a group of pottery at the Twentieth Annual Exhibition of Applied Arts. Several pieces were also shown at a recent exhibition of the Indiana Art Association, at Richmond, Indiana, and at local art clubs in Chicago.

The Art Department is making arrangements for an exhibition at the School of Education during the Summer Quarter. It will include paintings by Professor Sargent and by Miss van Pappelendam, some of the pottery recently produced by Mr. Whitford, sketches made by Miss Coe in Tangiers, Spain, and France, during the Spring Quarter, 1921, and art productions by other members of the department.

THE PRESENT STATUS OF STATE SUPERINTENDENTS OF PUBLIC INSTRUCTION

One of the most important educational positions in a state is that of the superintendent of public instruction or the state commissioner of education. Because of the large influence which this officer exerts in some states, there have been numerous demands

recently for information concerning the present status and tendencies of this office. An investigation of these matters was recently undertaken by Ward G. Reeder, Ph.D., State Teachers College, Moorhead, Minnesota.

The chief sources of information for this investigation were the latest school codes of the various states, earlier statutes and state constitutions, and recent educational articles. The facts secured concerning the duties and responsibilities of the state superintendent in each state were corrected and supplemented by that officer. The various problems which Dr. Reeder discusses in his report may be described briefly in terms of the following chapter headings: "Evolution of the Office," "Present Provision for the Office," "Official Designation of the Office," "Qualifications Required for Holding the Office," "Manner of Selecting the Incumbent of the Office," "Term of Office," "Salary of the Office," "Relation of the Office to the State Board of Education," "Powers and Duties of the Office," "The Staff of the Office," and "The Two-headed Systems of Idaho and Wyoming."

A MONOGRAPH ON SECONDARY EDUCATION

During the last three years, George S. Counts, Ph.D., associate professor of secondary education, Yale University, has been conducting a series of investigations concerning the social sources of the student population of high schools. The results of Dr. Counts's studies have been published as one of the *Supplementary Educational Monographs* under the title "The Selective Character of American Secondary Education." Inasmuch as accurate information concerning the character of the high-school population is necessary to an adequate solution of administrative and instructional problems, Dr. Counts's monograph will be of special value to superintendents and high-school principals.

SALARY OUTLOOK FOR HIGH-SCHOOL TEACHERS

H. R. BONNER
United States Bureau of Education

To choose a life-career intelligently three important factors about the vocation itself demand consideration—the preparation required for admission, the remuneration granted to the inexperienced, and future salary assurances. As two-thirds of all high-school teachers now hold degrees and since nearly all beginning high-school teachers are required to hold a baccalaureate degree, the first factor may be summarily disposed of as being known. This discussion deals with the analysis of the other two factors.

HIGH-SCHOOL TEACHING AS A CAREER

There is some doubt as to whether high-school teaching should be called a life-career. In Bulletin No. 50, 1921, of the Bureau of Education, it is shown that the "average" (median) high-school teacher has had only six years of experience. It does not follow, however, that teachers enter this branch of professional service for only six years. The rapid expansion of high-school enrolment, at the rate of 8 per cent per year, calls for an increasingly larger proportion of inexperienced teachers annually to care for the increase in attendance. If the enrolment remained constant, the average experience of high-school teachers would be about eleven years. A calling which holds its employees for so short a time can scarcely be called a life-career. With the advent of higher salaries the profession promises to become more attractive, and the period of service will undoubtedly be much longer.

ENTRANCE SALARY

It is shown in Table I that the average teacher now enters the profession at an annual salary of $1,297 or a little more than $100 per month the year round. The entrance salary for men averages $1,572 and that for women, $1,184. Thus it is seen that beginning

men teachers are paid $388 more than women. It should not be inferred that all beginners are equally paid. The entrance salaries vary considerably in the different states. For example, in Florida the beginner's salary is only $960, whereas in California the corresponding average is $1,886, or about twice as much. The salaries of beginning men teachers range from $1,289 in Missouri to $2,154 in California, and the corresponding averages for women teachers vary from $835 in Virginia to $1,760 in California. With such inequalities as these, there is great danger that the states paying the higher salaries will attract the better college graduates, while the states paying the lower salaries will be obliged to employ teachers of inferior native ability and of more limited training.

OUTLOOK FOR THE AVERAGE TEACHER

The average salary of 69,358 high-school teachers was found to be $1,678 in 1921. This average is only $381, or 29.4 per cent, more than the average salary for beginners. The salary outlook for the average teacher, therefore, is less than a 30 per cent increase. It should be borne in mind that the average outlook does not represent the salary assurance for every teacher in the profession. Men and women of unusual ability will excel this average even to the extent of being advanced to the more remunerative administrative positions, while those of inferior ability may fall far short of the average expectation. The corresponding outlook for men teachers is 29.3 per cent and that for women teachers, 27.0 per cent. A profession that promises such a meager assurance is not far superior to a "blind-alley" job. The slightly higher percentage for men may be influenced by the reaction to check the decreasing proportion of men teachers. The fact that men are now paid $529 more per year than women undoubtedly shows that men's services are at a premium.

The salary outlook for the average teacher varies considerably in the different states. For instance, in Delaware the assurance is for an increase of only 7.8 per cent; in New York, 64.6 per cent. These extremes are unquestionably influenced by the longer period of service in New York than in Delaware. In the report referred to it is found that 64.3 per cent of the teachers in New York state

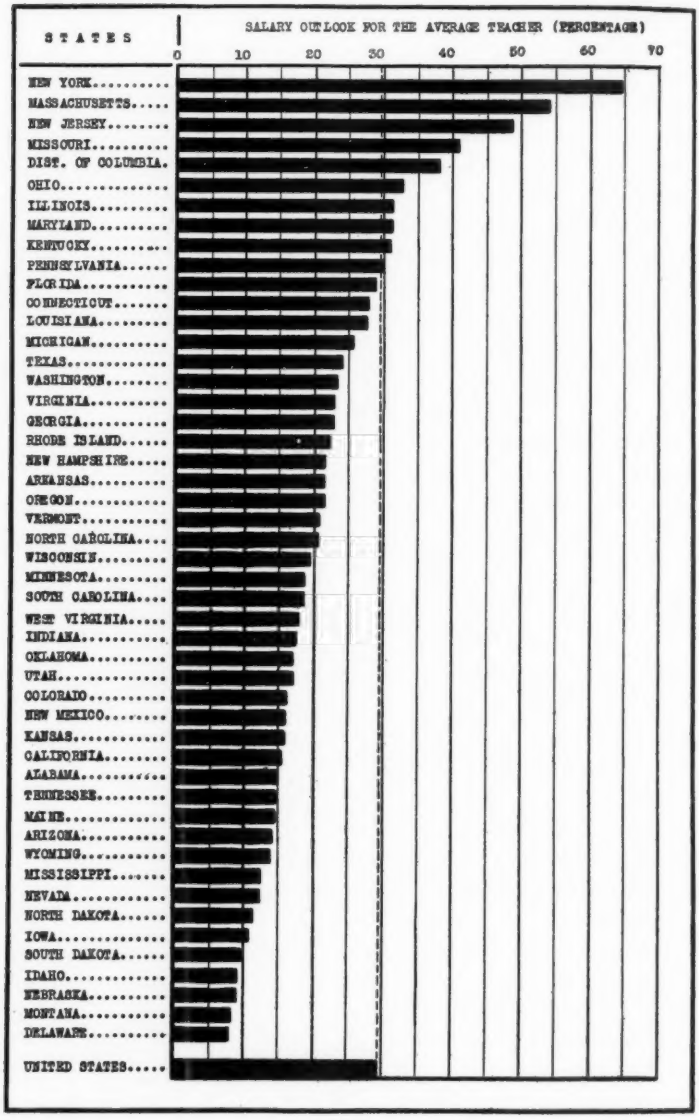
STATES
SALARY OUTLOOK FOR THE AVERAGE TEACHER (PERCENTAGE)
0
10
20
30
40
50
60
70
NEW YORK
MASSACHUSETTS
NEW JERSEY
MISSOURI
DIST. OF COLUMBIA
OHIO
ILLINOIS
MARYLAND
KENTUCKY
PENNSYLVANIA
FLORIDA
CONNECTICUT
LOUISIANA
MICHIGAN
TEXAS
WASHINGTON
VIRGINIA
GEORGIA
RHODE ISLAND
NEW HAMPSHIRE
ARKANSAS
OREGON
VERMONT
NORTH CAROLINA
WISCONSIN
MINNESOTA
SOUTH CAROLINA
WEST VIRGINIA
INDIANA
OKLAHOMA
UTAH
COLORADO
NEW MEXICO
KANSAS
CALIFORNIA
ALABAMA
TENNESSEE
MAINE
ARIZONA
WYOMING
MISSISSIPPI
NEVADA
NORTH DAKOTA
IOWA
SOUTH DAKOTA
IDAHO
NEBRASKA
MONTANA
DELAWARE
UNITED STATES

FIG. 1

TABLE I

AVERAGE ANNUAL SALARIES OF HIGH-SCHOOL TEACHERS IN 1921

STATE	NUMBER OF TEACHERS	AVERAGE SALARY			AVERAGE SALARY OF BEGINNERS			AVERAGE SALARY OF TEACHERS WITH OVER FIVE YEARS' EXPERIENCE		
		Men	Women	Total	Men	Women	Total	Men	Women	Total
Alabama	536	$1,773	$1,093	$1,279	$1,593	$ 974	$1,112	$1,924	$1,246	$1,495
Arizona	285	2,346	1,830	2,013	1,908	1,610	1,765	2,614	1,918	2,167
Arkansas	379	1,755	1,131	1,331	1,437	925	1,098	1,818	1,345	1,544
California	4,095	2,453	2,058	2,177	2,154	1,760	1,886	2,471	2,182	2,291
Colorado	840	1,976	1,512	1,656	1,794	1,284	1,423	2,097	1,685	1,838
Connecticut	840	2,281	1,608	1,781	1,600	1,340	1,394	2,411	1,746	1,945
Delaware	123	1,611	1,257	1,375	1,580	1,148	1,276	1,673	1,394	1,520
District of Columbia	236	2,247	2,133	2,165	1,600	1,560	1,568	2,267	2,239	2,277
Florida	348	1,739	1,063	1,234	1,316	894	960	1,873	1,192	1,418
Georgia	738	1,786	1,137	1,357	1,594	856	1,106	1,987	1,270	1,538
Idaho	534	1,778	1,478	1,584	1,661	1,331	1,455	1,921	1,543	1,679
Illinois	4,977	2,205	1,691	1,872	1,745	1,280	1,423	2,412	1,972	2,151
Indiana	3,141	1,583	1,281	1,400	1,374	1,091	1,193	1,689	1,441	1,555
Iowa	3,255	2,060	1,358	1,508	1,690	1,262	1,361	2,125	1,485	1,691
Kansas	1,939	1,877	1,391	1,558	1,543	1,245	1,343	2,034	1,537	1,743
Kentucky	667	1,650	1,115	1,317	1,270	864	1,004	1,807	1,291	1,513
Louisiana	744	1,994	1,197	1,411	1,626	958	1,107	2,177	1,377	1,659
Maine	685	1,738	1,110	1,319	1,444	980	1,152	1,937	1,158	1,416
Maryland	519	1,889	1,216	1,552	1,418	1,018	1,179	2,093	1,381	1,803
Massachusetts	3,020	2,467	1,600	1,880	1,514	1,085	1,221	2,670	1,774	2,074
Michigan	3,085	2,071	1,556	1,722	1,652	1,253	1,369	2,288	1,779	1,958
Minnesota	2,377	1,937	1,442	1,566	1,497	1,219	1,322	2,140	1,625	1,791
Mississippi	530	1,848	972	1,218	1,531	874	1,084	2,081	1,060	1,427
Missouri	2,106	1,877	1,302	1,499	1,289	972	1,063	2,104	1,570	1,793
Montana	632	2,040	1,593	1,714	1,786	1,450	1,585	2,178	1,704	1,831
Nebraska	1,523	1,888	1,376	1,501	1,705	1,262	1,380	2,029	1,499	1,638
Nevada	79	2,247	1,635	1,852	2,075	1,494	1,649	2,273	1,689	1,971
New Hampshire	406	1,892	1,207	1,405	1,615	1,041	1,158	2,164	1,342	1,638
New Jersey	1,742	2,520	1,707	1,992	1,507	1,290	1,341	2,815	1,928	2,281
New Mexico	276	1,906	1,474	1,635	1,572	1,339	1,405	1,996	1,496	1,704
New York	6,203	2,676	1,859	2,085	1,653	1,184	1,267	2,953	2,241	2,473
North Carolina	719	1,714	1,100	1,277	1,360	928	1,060	1,925	1,202	1,466
North Dakota	750	1,887	1,357	1,537	1,638	1,262	1,379	2,144	1,487	1,739
Ohio	3,819	1,933	1,622	1,743	1,449	1,244	1,313	2,095	1,891	1,983
Oklahoma	1,237	1,857	1,425	1,569	1,845	1,201	1,340	1,950	1,612	1,748
Oregon	742	1,754	1,442	1,553	1,517	1,185	1,281	1,840	1,614	1,713
Pennsylvania	4,565	1,886	1,436	1,625	1,416	1,137	1,250	2,094	1,643	1,850
Rhode Island	329	2,369	1,664	1,876	1,760	1,411	1,536	2,556	1,765	2,026
South Carolina	236	1,807	1,055	1,281	1,530	928	1,082	1,955	1,196	1,481
South Dakota	667	2,074	1,535	1,702	1,842	1,417	1,551	2,255	1,671	1,901
Tennessee	569	1,563	1,026	1,230	1,392	899	1,071	1,677	1,126	1,363
Texas	2,130	1,669	1,133	1,289	1,375	949	1,041	1,767	1,340	1,504
Utah	358	1,680	1,487	1,584	1,435	1,290	1,353	1,782	1,623	1,712
Vermont	383	1,886	1,197	1,384	1,462	1,063	1,147	2,135	1,293	1,572
Virginia	1,328	1,621	1,057	1,202	1,361	835	979	1,790	1,279	1,416
Washington	1,591	1,991	1,599	1,731	1,644	1,324	1,405	2,145	1,822	1,953
West Virginia	766	1,826	1,406	1,571	1,577	1,239	1,335	1,975	1,581	1,779
Wisconsin	2,112	1,975	1,450	1,607	1,596	1,264	1,348	2,195	1,657	1,847
Wyoming	197	1,969	1,628	1,722	2,400	1,455	1,514	1,950	1,763	1,812
United States	69,358	$2,033	$1,504	$1,678	$1,572	$1,184	$1,297	$2,248	$1,755	$1,943

have had over five years' experience, whereas the corresponding proportion in Delaware with such experience is only 35.8 per cent.

It is frequently found that the percentage of increase granted to all teachers combined is somewhat inconsistent with that granted to men and women considered separately. Table II for Alabama shows how this result so seemingly erroneous is nevertheless valid. It would seem as if the outlook for all teachers would fall between 11.3 per cent and 12.2 per cent. The apparent discrepancy is accounted for by the fact that the proportion of men teachers is

TABLE II

SALARY OF TEACHERS IN ALABAMA

	Number of Teachers	Total Salary	Average Salary	Outlook (Percentage)
	Beginning Teachers			
Men	25	$ 39,835	$1,593	.....
Women	87	84,751	974	.....
Total	112	124,586	1,112	.....
	All Teachers			
Men	147	260,651	1,773	11.3
Women	389	425,081	1,093	12.2
Total	536	685,732	1,279	14.9

not the same for beginners and for all teachers combined. It is found in Alabama that 27.4 per cent of all teachers are men, whereas the proportion of beginning teachers who are men is only 22.3 per cent. The inequality in the salaries paid to men and women and the relatively smaller proportion of men teachers who are entering the profession in this state tend to reduce the base on which the salary outlook (percentage) for all teachers is computed and consequently to augment the percentage of increase to be expected. This explanation leads to the conclusion that the figures representing the salaries of men and women separately are more authoritative than those representing the sexes combined. The discrepancies referred to could be eliminated by readjusting the weights for all teachers so that the number of men and women teachers would hold the same relationship as exists among beginning teachers.

Since such a manipulation of the data would produce artificial conditions, it is not considered advisable to ascertain results on this basis.

OUTLOOK FOR TEACHERS WITH OVER FIVE YEARS' EXPERIENCE

As many high-school teachers drop out of the profession before the end of the fifth year, the salary outlook for those who remain is much larger than has been indicated. It is found that the outlook for the teacher who remains longer than five years is for an increase of $646, or 49.8 per cent above the entrance salary. The corresponding assurance for men is $676, or 43.0 per cent, and for women $571, or 48.2 per cent. The promise, therefore, for a long period of service is more favorable to the women than to the men. In other words, there is a greater initial inducement for men than for women to enter the profession, but a slightly greater percentage of increase is promised to women than to men for a long period of service.

PREMIUM PAID TO BEGINNERS

To induce young men and women to enter the high-school teaching profession during the unusual period of the war it was thought necessary to increase the salaries of beginning teachers at a more rapid rate than the salaries of other teachers. Thus, the salaries of all teachers were increased only 52.6 per cent from 1918 to 1921, whereas the salaries of beginners were raised 60.9 per cent, or 15.8 per cent more. In short, beginners were at a premium of 15.8 per cent. In ten states, however, beginners were at a discount; that is, their salaries were not raised at as rapid a rate as the salaries of other teachers. The premium on beginners reached a maximum of 87.8 per cent in Connecticut, and the discount was greatest in Delaware where the percentage of increase was 43.9 per cent less than that for all teachers combined. Undoubtedly, in states in which beginners were at a discount an unusual attempt was made to retain teachers already in the service. On the other hand, the premium probably indicates an inability to recruit teachers in sufficient numbers to maintain the necessary corps of instructors.

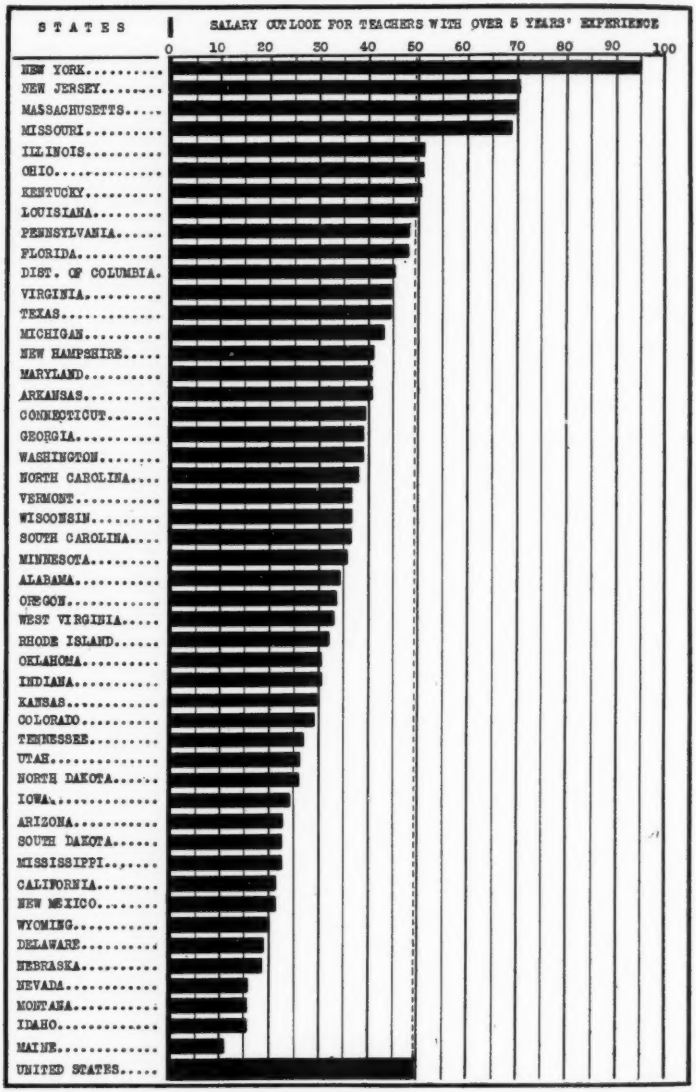
STATES
SALARY OUTLOOK FOR TEACHERS WITH OVER 5 YEARS' EXPERIENCE
0 10 20 30 40 50 60 70 80 90 100
NEW YORK
NEW JERSEY
MASSACHUSETTS
MISSOURI
ILLINOIS
OHIO
KENTUCKY
LOUISIANA
PENNSYLVANIA
FLORIDA
DIST. OF COLUMBIA
VIRGINIA
TEXAS
MICHIGAN
NEW HAMPSHIRE
MARYLAND
ARKANSAS
CONNECTICUT
GEORGIA
WASHINGTON
NORTH CAROLINA
VERMONT
WISCONSIN
SOUTH CAROLINA
MINNESOTA
ALABAMA
OREGON
WEST VIRGINIA
RHODE ISLAND
OKLAHOMA
INDIANA
KANSAS
COLORADO
TENNESSEE
UTAH
NORTH DAKOTA
IOWA
ARIZONA
SOUTH DAKOTA
MISSISSIPPI
CALIFORNIA
NEW MEXICO
WYOMING
DELAWARE
NEBRASKA
NEVADA
MONTANA
IDAHO
MAINE
UNITED STATES

FIG. 2

This premium-and-discount theory has a direct bearing on the salary outlook for teachers. In states granting a premium to beginning teachers the salary outlook is not so favorable as it would have been had all salaries, regardless of experience, been increased at the same rate. On the other hand, in states showing a discount on beginners the figures indicating the salary expectation are relatively large. Thus the salary outlook for Connecticut of 27.8 per cent for all teachers is lower than it should be since the salaries of beginners were unusually increased in the three-year period (87.8 per cent over the average rate). At the other extreme, it must be inferred that the low salary outlook of 7.8 per cent for Delaware is larger than it should be since the salaries of teachers in service were increased more rapidly than those of beginning teachers. In other words, Delaware probably has no adequate schedule, either specifically adopted or implied.

The average premium paid for beginning high-school teachers above the average percentage of increase for teachers with over five years' experience is even greater than the premium based on the average percentage of increase for all teachers. From Fig. 3 it is found that the premium was 21 per cent. In other words, beginning teachers were granted a percentage of increase 21 per cent greater than that given to teachers with over five years' experience. This practice, as shown in the bulletin referred to, has resulted in a decrease of 2.5 per cent in the proportion of teachers with over five years' experience from 1918 to 1921. This exodus of experienced teachers from the profession indicates deterioration in our high-school teaching staff. Again, Connecticut and Delaware exhibit extreme conditions. In the former state beginning teachers received a percentage of increase 119.1 per cent greater than that given to teachers with five years' experience. In the latter state beginning teachers were awarded a percentage of increase 49.9 per cent less than that given to teachers with five years' experience. Beginners in Delaware were at a discount of almost 50 per cent in 1921.

CONCLUSIONS

On each count there is sufficient evidence to show that beginning teachers were much in demand in 1921 and that more experienced

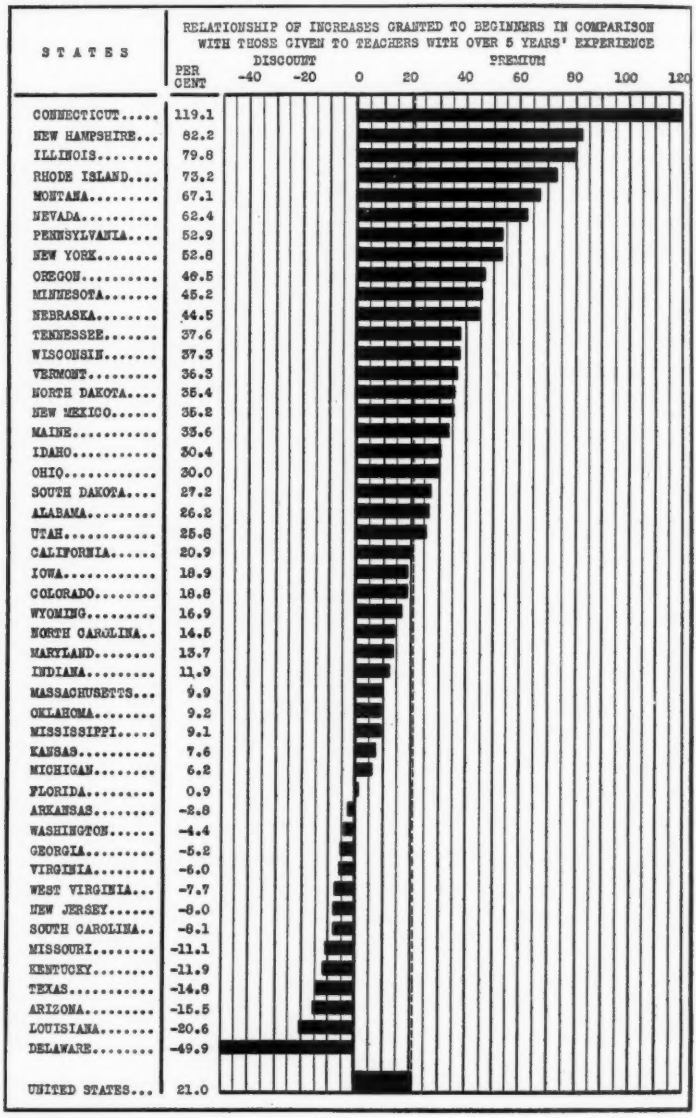
STATES
RELATIONSHIP OF INCREASES GRANTED TO BEGINNERS IN COMPARISON WITH THOSE GIVEN TO TEACHERS WITH OVER 5 YEARS' EXPERIENCE
DISCOUNT
PREMIUM
PER CENT
-40 -20 0 20 40 60 80 100 120
CONNECTICUT..... 119.1
NEW HAMPSHIRE... 82.2
ILLINOIS..... 79.8
RHODE ISLAND.... 73.2
MONTANA..... 67.1
NEVADA..... 62.4
PENNSYLVANIA.... 52.9
NEW YORK..... 52.8
OREGON..... 46.5
MINNESOTA..... 45.2
NEBRASKA..... 44.5
TENNESSEE..... 37.6
WISCONSIN..... 37.3
VERMONT..... 36.3
NORTH DAKOTA.... 35.4
NEW MEXICO..... 35.2
MAINE..... 33.6
IDAHO..... 30.4
OHIO..... 30.0
SOUTH DAKOTA.... 27.2
ALABAMA..... 26.2
UTAH..... 25.8
CALIFORNIA..... 20.9
IOWA..... 18.9
COLORADO..... 18.8
WYOMING..... 16.9
NORTH CAROLINA.. 14.5
MARYLAND..... 13.7
INDIANA..... 11.9
MASSACHUSETTS... 9.9
OKLAHOMA..... 9.2
MISSISSIPPI..... 9.1
KANSAS..... 7.6
MICHIGAN..... 6.2
FLORIDA..... 0.9
ARKANSAS..... -2.8
WASHINGTON..... -4.4
GEORGIA..... -5.2
VIRGINIA..... -6.0
WEST VIRGINIA... -7.7
NEW JERSEY..... -8.0
SOUTH CAROLINA.. -8.1
MISSOURI..... -11.1
KENTUCKY..... -11.9
TEXAS..... -14.8
ARIZONA..... -15.5
LOUISIANA..... -20.6
DELAWARE..... -49.9
UNITED STATES... 21.0

FIG. 3

teachers did not receive the consideration shown to inexperienced teachers. Boards of education probably found that it was easier to hold in the profession teachers who had already enlisted than to induce college graduates to enter it. The situation reveals an unfairness exercised toward experienced teachers.

The report shows that an attempt seems to have been made to offset in part the increasing cost of living by adding a bonus to pre-war salaries—a tendency operating in favor of the beginning teacher. The average absolute increase for the United States from 1918 to 1921 was $578, varying from $315 in Florida to $729 in South Dakota. For beginners the bonus was $571 for men, $444 for women, and $491 for both. For teachers with over five years' experience it was $725 for men, $611 for women, and $643 for both. These bonuses were not sufficient until May, 1921, to meet the increased cost of living and did not meet it until it began to drop. The inadequacy of these increments resulted in a loss of college graduates amounting to 9 per cent, an increase of 17 per cent in the proportion of normal-school graduates, and an increase of 37 per cent in the proportion of non-graduates. Thus it is seen that inadequate pay and promise-to-pay resulted in a deterioration which will require many years to counteract. If present salary schedules remain as they are, there will be little inducement for young men and women of ability to remain in the profession. The result will be an ever-shifting teaching staff, and higher educational institutions will be called upon to supply an extraordinary number of high-school teachers each year to take the place of those who discover that the profession offers little financial inducement. It would seem, therefore, in view of these disclosures, that high schools are called upon to adopt salary schedules that will recognize and reward meritorious service and experience in this branch of professional service. The salaries of experienced teachers will need to be increased. A vocation that promises no greater reward than 29.3 per cent for the average employee or 49.8 per cent for those who pass the five-year mark is not likely to result in a contented personnel and will probably not succeed in holding the services of its most capable employees.

SCIENCE IN THE ACCREDITED HIGH SCHOOLS OF WASHINGTON

FRANK K. FOSTER
High School, Tonasket, Washington

There has never been any attempt to ascertain the extent of science teaching in the accredited high schools of the state of Washington. In seeking to determine the present status of instruction in science and the efforts being made to co-ordinate the science work of the secondary schools with science in the university, a questionnaire was sent to the 211 accredited high schools of the state. Returns from 147, or 69 per cent, of the schools furnish the basis for this report.

The total class enrolment, the number of teachers in the high school, the number of science teachers and their teaching combinations, the degrees held, and the years of experience were considered important in selecting the typical high school.

There is a total enrolment of 32,810 pupils in the 147 schools. There are 12,108 Freshmen, 8,831 Sophomores, 6,479 Juniors, and 5,392 Seniors. Of the 1,738 teachers represented, 291 are science teachers. One hundred and ninety-six of those teaching science have a Bachelor's or a Master's degree with a major or minor in science; 71 have a Bachelor's degree without a major or minor in science, and 24 have no degree, though the majority of these are working for a degree. This group of 291 science teachers represents a total of 1,756 years of teaching experience, or an average of 6+ years. Table I shows the total enrolment, the median enrolment, and the range of enrolment in each of the four high school grades for the 147 schools.

The typical high school in the state of Washington in terms of medians has an enrolment of 89 Freshmen, 82 Sophomores, 90 Juniors, and 80 Seniors. There are 11 teachers in the high school, two of whom are science teachers. Ten of the 11 teachers are college graduates. The majority of the accredited high schools

are so small that the typical teacher has to teach from three to six subjects.

A recent study[1] concerning the market for prospective high-school teachers has shown that there is a wide range of teaching combinations and a general lack of "standard combinations." The data for the report were compiled from the applications for teaching positions placed at the Washington State College at Pullman and reports from the Washington State Department of Education.

According to the present study, during the school year 1920–21, mathematics was taught in combination with science in a majority of instances, this combination scoring 47 cases in the 147 schools

TABLE I

ENROLMENT BY GRADES IN 147 ACCREDITED HIGH SCHOOLS

Grade	Actual Enrolment	Median Enrolment	Range of Enrolment
IX	12,108	89	4 to 900
X	8,831	82	4 to 755
XI	6,479	90	3 to 520
XII	5,392	80	1 to 477
Total	32,810	.....	.....

reporting. History is second with 23 cases. Chemistry or physics is the principal science combined with mathematics, while a biological science is the next most frequent combination with mathematics.

A second consideration was to determine (1) the number of schools offering the various sciences, (2) the number of units offered, (3) whether the science is elective or required, (4) whether it is required in the scientific course, (5) the year or years in which the course is offered, (6) the number of students in the course during the school year 1920–21, and (7) the number of recitation and laboratory periods per week and their length. There is a recitation and laboratory period plan that is generally recognized in all laboratory sciences. There are three recitation and two double laboratory periods of forty-five minutes each per week. To

[1] Aubrey A. Douglass, "The Market for Prospective High School Teachers," *School and Society*, XIII (May 21, 1921), 602–6.

count as a "unit," a subject must be taught five times per week, in periods of not less than forty-five minutes, for a school year of not less than thirty-six weeks.

Table II indicates the present status of the teaching of the various sciences in the accredited high schools in respect to the points mentioned.

Astronomy constitutes a small part of the science offered in the accredited high schools. There is no scientific curriculum where the science is offered. The course is required in the six schools

TABLE II

DATA CONCERNING THE TEACHING OF THE VARIOUS SCIENCES IN 147 ACCREDITED HIGH SCHOOLS

Science	Number of Schools Offering	Number of Units Offered	Elective in Addition to the Required Science?	Required for Graduation from Scientific Course?	Year or Years Offered	Number of Students during 1920–21
Astronomy	6	1	No	No	X, XI, XII	185
Biology	55	2	Yes	Yes	IX, X, XI	1,164
Botany	77	2 (8 schools) 1 (69 schools)	Yes	Yes	X, XI	2,417
Chemistry	83	2 (6 schools) 1 (77 schools)	No	Yes	XI, XII	2,406
General science	119	1	Yes	Yes	IX, X	6,340
Physical geography	29	.5	Yes	No	IX	519
Physics	131	1.5 (17 schools) 1 (114 schools)	Yes	Yes	XI, XII	2,588
Physiology	29	1	Yes	Yes	X, XI, XII	421
Psychology	7	1	Yes	No	XII	197
Zoölogy	16	1	Yes	Yes	X, XI	513

giving it. All of the schools offering the subject are very small, which indicates that the science is supplementary in nature or that the course is offered to fill science requirements because the teacher happens to be trained in astronomy. Three of the schools offer the course in the Senior year, two in the Junior year, and one in the Sophomore year.

Many of the schools alternate the subject of biology with botany or zoölogy. This gives more science work in the curriculum and cares for a larger number of students. Botany and zoölogy are taught as separate subjects, though they constitute the subject of biology. Thirty-seven per cent of the schools reporting taught

biology during the school year 1920–21. In the larger schools of the state where a scientific curriculum is offered, biology is required. Most of the schools are so small that the science offering is limited to one or two subjects. However, biology is found as an elective in the majority of schools. There are slight variations in the length of periods reported. For example, there are six schools reporting thirty-five and forty-minute periods. Forty-seven of the schools offer biology in the Sophomore year, five in the Junior year, and three in the Freshman year.

The study of the form and structure of plants has an important place among the sciences of the high-school curricula. Botany is in part a repetition of the biology course and is used as an alternate in many of the schools. Fifty-two per cent of the schools reporting taught botany during the school year 1920–21. Eight schools offer two years of botany work, and 69 schools one year. The course is confined to the Sophomore and Junior years. Being one of the more concrete sciences, it is best adapted to these years in the curriculum. Three recitation and two laboratory periods per week are required.

Chemistry, outside of the scientific course, is elective in a few of the largest schools. It is required in all scientific courses. Sixty-two of 83 schools offer chemistry in the Junior year and 21 in the Senior year. Most of the schools teach chemistry or physics in alternate years. Mathematics is the principal teaching combination with chemistry and physics. In cases where the domestic-science teacher teaches an additional subject, it is usually chemistry.

General science takes a major position in the science curriculum. Eighty-one per cent of the schools reporting offer general science. One hundred and fifteen schools offer it in the Freshman year, and four schools in the Sophomore year. More than 50 per cent of the first-year enrolment is represented in this course, although the subject has relatively little value in preparing for collegiate work. There is no definite laboratory arrangement for the teaching of general science in one-half of the schools. The course is supplemented by laboratory exercises in some of the schools.

Geology is not included in Table II because it is offered in but one school. There are 23 students enrolled in the course, and it is of-

fered in the Senior year. The subject is required. Few teachers are prepared to teach geology, which is one reason for the absence of this subject from the high-school curricula. The commercial demand for trained men in geological work will make this subject a more important part of the high-school curricula in the future.

The teaching of physical geography is not very common in the high schools. The subject is primarily a Freshman subject and is taught in the first half of the Freshman year, one-half credit being offered. It is largely confined to the smaller high schools. The schools offering scientific curricula do not require it, although it is sometimes offered as an elective. Some schools offer a half-year of botany, zoölogy, or biology in combination with physical geography as a year's work in science. The small number of Freshmen electing this subject is indicative of limited interest in the course.

Physics takes the leading rôle among the sciences offered by the high schools. Ninety per cent of the schools offer physics regularly, and the remaining 10 per cent are represented among those schools offering chemistry as an alternate with physics. In schools that present scientific curricula physics is required in the Junior year. In the smaller schools where the academic course alone prevails, physics is elective in the Junior or Senior year. Since 70 per cent of the science teachers have a Master's or a Bachelor's degree with a major or minor in science, it is fair to assume that most of this number have had extensive training in physics or chemistry. With a few exceptions, these subjects are required in the science curricula of the universities and colleges.

Physiology is required in the pre-medic, pharmacy, physical-education, and domestic-science courses in the university, but it is seldom included in the high-school curriculum. Hygiene and other physiological courses have been supplemented, and the work in physiology has been carried over to the university, where more adequate instruction and better laboratory facilities are available. It has been suggested that this course should be offered where a sufficient number of high-school students wish to enter one of the courses mentioned as requiring physiology. Desirable as this may seem, a review of the medical colleges of the country shows but one instance where physiology is an entrance requirement. Most of

these institutions prefer to teach the course in their own way; hence it is not included in the entrance requirements. Credit in physiology is accepted as a science entrance requirement in most universities.

There seems to be no definite place for the teaching of physiology in the high-school curriculum, and the comparatively small number enrolled in the course shows limited interest. However, physiology should be taught in the high school. Hygiene should be made supplementary. The teaching of physiology has served an end if the students have been made to feel their hygienic responsibility to each other. The cause of most preventable diseases is the ignorance of the individuals composing the group.

The present tendency in educational practice is toward the offering of psychology in the secondary curriculum. Though it takes a place with other abstract sciences, the educational value is in question because there is no standard basis of instruction. In the schools reporting there is no prescribed laboratory period in psychology, but the subject is taught five periods per week. The work in psychology is contributory to interpretations in other phases of school activity, and it will take considerable time to get this science well established in the secondary curriculum, as it has with all other sciences.

Zoölogy represents a small part of the science taught. Reference to Table II indicates the predominance of botany over zoölogy. Zoölogy or botany is required for graduation from schools offering scientific curricula. These sciences are generally offered in the Sophomore or Junior year. The reason for the predominance of botany can be ascribed to the fact that the agricultural communities of this state demand botany in the school. Teachers select botany as a teaching subject because the laboratory material is easily obtained. There is also a tendency to avoid sex problems, which naturally arise in the teaching of zoölogy.

Conclusions

A student taking the required subjects in any of the prescibed courses offered in some of the schools may choose as electives any subjects offered in any other course. The only limitation placed

on the free choice of electives is that required subjects must come before electives and should be taken in their regular order. A great number of electives are open to students in the larger schools; the small schools meet this situation by alternating various subjects. This enables the students to develop their own interests.

College-entrance requirements are so varied that it does not seem possible to formulate a four-year high-school course that will meet the entrance requirements of all colleges. Many college students are compelled to spend a year's time working off some prerequisite to their course of study which should have been offered by the high school. A standard course of study with a wide range of electives would increase the effectiveness of correlation between the secondary and collegiate institutions of the state. The graduating high-school student should be able to enter the university without having to complete prerequisite courses which are offered in some of the high schools and should be standardized in all. Supervisors should be familiar with the entrance requirements of the colleges which their high-school graduates will probably attend. All possible concessions should be made to correlate the high-school and the college courses.

The present system of financing the schools prevents rapid progress in science teaching. Adequate teaching facilities and the proper laboratory materials are not available. The large schools draw the best and more specialized teachers. The smaller school has little equipment, and the science teacher is teaching two or three subjects. A high standard of teaching efficiency is seldom attained when teachers are compelled to teach subjects which they are not prepared to teach.

The consolidation of certain small outlying high schools into a central school would decrease the operating expenses. Adequate appropriations by a state commission to each of these central schools would give all of the people of the state equal educational advantages. Modern equipment could be supplied, and trained teachers in each phase of school work could be obtained. A greater range of electives could be included in the curriculum, and the standardization of courses could be established in closer correlation with the entrance requirements of the universities.

A STUDY OF FAILURES

B. E. McCORMICK
Superintendent of Schools, LaCrosse, Wisconsin

At the end of the first quarter of the school year, 1920–21, the number of failures in our high school was unusually large—so large that the problem of reducing it was taken up at once. Temporary relief was provided, and this was followed by a study of the possible causes of failure.

Our first effort was to determine what effect, if any, the size of the class had on the number of failures. The average percentage of failures at the end of the first semester was 11.4; at the end of the second, 9.1. The average number of students in each class during the first semester was twenty-three; during the second semester, twenty-four. With the majority of teachers, the percentage of failures was less the second semester than the first.

TABLE I

PERCENTAGE OF FAILURES IN THE DIFFERENT GRADES

Year	First Semester	Second Semester
Freshman	12.4	10.8
Sophomore	14.3	12.1
Junior	12.0	7.0
Senior	5.5	5.5

Twelve teachers had a larger percentage of failures the second semester than the first. Of this number, six had smaller classes the second semester, two had classes the same size, and four had classes averaging one pupil larger. It was evident from the data collected that the size of the classes had little effect on the number of failures.

The data were further analyzed with a view to determining the percentage of failures by grades and by subjects. The averages are shown in Tables I and II.

Of the teachers from whom the data were collected, five had only normal-school training or its equivalent; three had normal-school and college training; and twenty-five had college or university training. The average percentage of failures for the group trained in normal schools was 8.8; for the normal-school and college-trained group, 12.4; and for the college-trained group, 10.1. In this instance, the teachers of least training had the lowest percentage of failures, while those with normal-school and college training had the highest. It is hardly fair to draw general conclusions, however, because the number of normal-school and college-trained teachers was very small and because the teachers

TABLE II

PERCENTAGE OF FAILURES IN DIFFERENT SUBJECTS

Subject	Percentage
Science	12.1
Latin	11.5
Mathematics	10.5
History	9.5
English	9.5
French	8.5
Commercial	7.0

with the lesser training were teaching subjects in which failures are commonly less numerous than in some of the other subjects.

The teachers reporting were divided into three groups, according to experience: those with less than five years of experience, those with five to fifteen years, and those with more than fifteen years. In the first group, there were nine; in the second group, seventeen; and in the third group, seven. The percentage of failures in the classes of the teachers having less than five years of experience was 11.5; those with from five to fifteen years of experience, 10.3; and those with over fifteen years of experience, 9.3. In other words, the teachers of greatest experience had the lowest percentage of failures, while those of the least experience had the highest.

According to the data of Table III, the percentage of failures among teachers of Algebra I varied from 20 to 14; among teachers of English I, from 14 to 5; of Latin I, from 35 to 17; and of English III, from 26 to 8. All of these teachers were supposed to be teach-

ing students of similar qualifications, since with the exception of certain English I classes there had been no segregation of students on the basis of ability. They were supposed to be teaching exactly the same course of study.

TABLE III

VARIATION IN PERCENTAGE OF FAILURES AMONG TEACHERS OF THE SAME SUBJECT

Subject	Teacher			
	1	2	3	4
Algebra I	20	18	14	.....
Geometry I	22	22	16	.....
English I	14	10	9	5
History I	20	14	14	.....
Latin I	35	17	.....	.....
English III	26	8	.....	.....

At the end of the first quarter questionnaires were sent to all of the teachers. The following information was requested: number of failures; percentage of failures; number of pupil conferences; number of conferences with parents; number of cases in which home conditions were known; number of cases reported to Health

TABLE IV

PERCENTAGE OF STUDENTS FAILING FOR SPECIFIED REASONS AS REPORTED BY ALL TEACHERS

Cause of Failure	Percentage
Lack of application	49.0
Absence	20.0
Poor foundation	16.6
Mental inability	4.7
Poor general health	4.4
Laziness	2.5
Defective vision	2.4
Defective hearing	0.4

Department; number of students regarded as better fitted for other work; number contributing to support of family; number of students whose past school records were known to the teacher; the teacher's estimate of each student's ideals; and the cause of each failure. The returns from this questionnaire are summarized in Tables IV and V.

It is significant that in the judgment of the teachers only 11.9 per cent of all of the failures were due to mental inability, poor general health, and defective vision and hearing, conditions over which the school has little control, and that 88.1 per cent of the failures were due to other causes such as lack of application, absence, laziness, and poor preparatory training, conditions over which the school has some control. If the judgment of the teachers is correct, certainly improvement should be effected through changes in conditions and practices in the school.

TABLE V

DATA CONCERNING FAILURES REPORTED BY TWELVE TEACHERS

	Teacher											
	1	2	3	4	5	6	7	8	9	10	11	12
Number of failures	17	24	9	14	20	10	29	30	31	40	35	41
Percentage of failures	4.6	6	6	12	15.6	16.7	19	22	23	25	26.1	29
Number of pupil conferences	17	24	45	11	0	20	58	60	90	40	0	82
Number of parent conferences	18	2	1	14	1	0	4	4	1	2	0	0
Number of cases in which home conditions were known	17	24	2	....	0	2	4	0	20	5	1	0
Number reported to Health Department	0	2	0	0	0	1	0	0	0	2	0	0
Number better fitted for other work	2	3	1	0	2	4	1	9	4	10	5	0
Number contributing to support of family	6	0	1	....	....	....	0	12	10	....	....	0
Number of past school records known	17	24	3	14	0	3	2	0	15	10	0	0

From the data concerning the number of pupil and parent conferences, it appears that the teachers having the highest percentages of failures worked as earnestly with the pupils as did those having the lowest percentages of failures, while, on the other hand, there is an inverse ratio between the percentage of failures and the number of parent conferences. Certain other facts reported in Table V pertain to a study of the home conditions, health, habits, and past school record of the individual student. It is evident that the teachers who gave attention to these elements of the situation accomplished better results with fewer pupil conferences than did those who merely spent more time with the pupils in a formal way.

There was some evidence that the study habits of the students were an important factor in failure, and so a study of the out-of-school habits of students was attempted. A questionnaire asking for information about the activities of the students on a certain evening was submitted to all of the students. The date selected was one upon which there were no extra activities in so far as the schools or the city were concerned. Among the questions asked were the following: "What time did you retire last night?" "Were you away from home after the evening meal?" "Do you have a good light to study by?" "Do you study in a quiet room?" The replies are summarized in Table VI. Only 1.5 per cent of the

TABLE VI

FACTS CONCERNING OUT-OF-SCHOOL HABITS OF STUDENTS

Time of Retiring	Percentage of Students
8:00	1.5
8:30	3.3
9:00	12.2
9:30	20.9
10:00	21.3
10:30	20.7
11:00	10.8
11:30	5.5
12:00	1.7
After 12:00	2.1
Away from home after the evening meal	47.8
Having good light by which to study	97.0
Doing home study in a quiet room	62.0

students retired at eight o'clock, while over 2 per cent were up after midnight. Sixty-two and one-tenth (62.1) per cent retired at ten o'clock or later and secured only from six to nine hours of rest, provided they arose at 7:00 A.M. The average age of pupils entering the high school is a little less than fourteen years. According to authoritative reports, boys and girls of high-school age should secure normally from nine to twelve hours of rest out of every twenty-four.

Table VI shows also that over 47 per cent of the students were away from home following the evening meal. While some of these

claimed to have done some studying, it is evident that the greatest amount of out-of-school studying was done by the 53 per cent who stayed at home. Ninety-seven per cent of those who studied during the evening reported that they had good light to study by. However, only 62 per cent were privileged to study in a quiet room, 38 per cent attempting to study in the presence of conversation or other disturbing influences which, of course, prevented concentration and efficient work.

On the whole, the data suggest that, through the co-operation of parents and teachers, it should be possible to eliminate a large percentage of the failures. Moreover, it was the experience of those teachers who invited it that they received the heartiest kind of co-operation from parents. Improvement was noted in many cases because the combined efforts of the teacher and parents had brought about better out-of-school study habits.

Education is a problem of the home and the school. Teachers should not be required to assume full responsibility for success or failure in school any more than parents. The average parent gives little attention to school matters as a rule, and so it is necessary for teachers to take the initiative in bringing about co-operative effort.

The following facts are apparent from this study of failures in the high school:

1. The percentage of failures did not depend to any great extent upon the size of the classes.

2. With few exceptions, the percentage of failures did not depend to any extent upon the subject studied.

3. The percentage of failures was not especially pronounced in any particular year of high-school work.

4. The percentage of failures appeared to be influenced by (*a*) the attitude of the students toward their work; (*b*) the out-of-school study habits of the students; (*c*) co-operation between the student and teacher and between the parent and teacher; (*d*) the personality, professional preparation, and professional attitude of the teacher.

With a view to improving the conditions noted, the following outline of procedure was put in the hands of each teacher.

I. Determination of causes of poor work
  1. Study habits
    a) In school
    b) Out of school
  2. Reading ability
  3. Student's attitude toward work
  4. Health habits
  5. Out-of-school habits
  6. Mental capacity

II. Suggestions for correction
  1. Student conferences
    a) Improve reading ability (see supplementary suggestions)
      (1) Rate
      (2) Comprehension
    b) Improve study habits (see supplementary suggestions)
      (1) Clarify assignment (see supplementary suggestions)
      (2) Show student how to study
        (*a*) Value of concentration
        (*b*) Discrimination in values
        (*c*) Note-taking
    c) Pupil attitude
      (1) Discover student's dominant interest and use it if possible
      (2) Gain student's confidence
  2. Parent conferences
    a) Atmosphere of conference
    b) Suggestions for conference
      (1) Home study
        (*a*) Quiet room
        (*b*) Regular place and hour
        (*c*) Good light
        (*d*) Straight chair and table
      (2) Health habits
        (*a*) Proper amount of sleep
        (*b*) Proper nutrition
      (3) Physical defects
        (*a*) Vision
        (*b*) Hearing
      (4) Out-of-school activities
  3. Capacity standards and assignments
    a) Individual capacity gauged by intelligence test, grade principal's rating, or past scholastic record
    b) Variable standards
    c) Maximum, average, and minimum assignments

This outline was accompanied by supplementary material on how to improve reading ability, the assignment, and suggestions on teaching students how to study.

READING ABILITY

I. 1. Test student's rate and comprehension by
   a) A standard test secured from superintendent's office
   b) An informal test devised by teacher
   2. Technique to be employed in giving an informal test
      a) Select article two or three pages in length and of simple content
      b) Give student one minute in which to read silently as far as he can. Warn him that he is to answer questions on the material later
      c) Call time at the end of one minute and have student mark last word read
      d) Permit student to finish reading selection at his own rate
      e) Have student put aside book and answer questions previously prepared by teacher on content
      f) Count number of words read in one minute
      g) Compare results with standards
         (1) Rate—280 words per minute
         (2) Comprehension—75 per cent of ideas in selection

II. Suggestions for improving reading ability
   1. Rate
      a) Have student read short paragraphs under time pressure and answer questions based on content
      b) Encourage student to time himself in his reading work
   2. Comprehension
      a) Have student read short paragraph and answer questions based on content. Require re-reading until student gets all of the ideas and answers the questions correctly
      b) Have student read selections of considerable length and write summary. Require re-reading and revision of summary
      c) Have student read selections of considerable length and make outline with book open
      d) Have student read long selection and answer questions based on content. Require re-reading if necessary

THE ASSIGNMENT

I. Importance of assignment
   1. "Assignment is of sufficient importance to deserve one-fifth of the recitation time."—Wolfson
   2. "Of all elements, the assignment of the new lesson is of greatest importance."—Betts

II. Teacher preparation preliminary to assignment
   1. Preparation of advance lesson
   2. Time apportionment of recitation period
      a) Review—5 minutes
      b) Recitation—25 minutes
      c) Summary—5 minutes
      d) Assignment—5 minutes

III. How to assign a lesson

1. Go over lesson with class, giving bird's-eye view, sometimes with books open calling attention to main topic
2. Analyze lesson to get main points
3. Explain unfamiliar phrases or technical terms
4. Give definite directions for written work

IV. A good assignment

1. Leaves no doubt in the student's mind as to just what he is to do for the next lesson
2. Not only tells the student what to cover but specifies how the information is to be reported
3. Clears up difficulties so that the student may go to work without loss of time
4. Includes maximum, average, and minimum assignments

STUDY HELPS FOR STUDENTS

The habits of study formed in school are of greater importance than the subjects mastered. The following suggestions, if carefully followed, will make your mind an efficient tool. Your daily aim should be to learn your lesson in less time, or to learn it better in the same length of time.

1. Form the habit of studying the lesson in any subject in the same place and at the same time each day. This will be difficult at first, but it will soon become a habit.

2. Have proper study conditions and equipment—a quiet room not too warm, good light, straight chair and table, the necessary books, tools, and materials.

3. Study independently. Do your own work and use your own judgment; ask for help only when you cannot proceed without it; develop ability to think for yourself and the will-power and self-reliance essential to succeess.

4. Arrange your tasks economically; study those subjects requiring close attention, like reading, first; and those in which concentration is easier, like written work, later.

5. Begin work promptly, without lounging or waste of time. Assume an attitude of attention; it will help you to get interested in the work at hand. When you are actually tired, exercise a moment or change to a different type of work.

6. Hold yourself to the task in hand. You cannot study one minute and then gaze out of the window a minute or think about other pupils and accomplish much.

7. Before beginning the advance work, review rapidly the previous lesson.

8. Be clear on the assignment and the form in which it is to be presented. In class, take notes when the assignment is made. When in doubt, consult the teacher.

9. In committing material to memory, learn it as a whole; go over it quickly first, then more carefully, and then again and again until you know it. In learning forms, rules, vocabularies, etc., it will help to repeat them aloud.

10. In studying material to be understood and assimilated but not memorized, first go over the whole quickly, then carefully, section by section; then, if possible, review the whole quickly.

11. Use judgment as well as memory; analyze paragraphs; select important points; note how minor ones are related to them; make a record of the important points so that you may learn systematically and review easily.

12. Use all of the material aids available—index, appendix, notes, vocabulary, maps, and illustrations, both in your textbook and in other books and periodicals.

It was also suggested that those charged with the administration of the individual school should attempt to bring about greater co-operation between parents and teachers.

The following experiment was tried in our high school:

All of the eighth-grade pupils who entered the high school in February, 1921, were given an intelligence test. The ratings of all of the pupils were secured from the principals of the schools which they attended. Using the intelligence quotients obtained from the test and the ratings obtained from the principals, the pupils were divided into two groups. The more capable pupils were included in Group A; those of less ability, in Group B. The two groups were assigned to separate sections in English work in the high school. There were three sections of Group A and two of Group B. There were also two mixed sections, that is, sections in which there were pupils with high and low intelligence scores. These were called Group C. During the year, 9.1 per cent of Group A, 28.6 per cent of Group B, and 8.8 per cent of Group C left school. It was ascertained that the principal reason for leaving was discouragement in subjects other than English. In the work in English, there was an attempt at capacity adjustment. In reading, for example, the students in Group A were assigned a larger amount of work than those of Group B, and in composition the students in Group A did twice as much work as those of Group B. After experimenting, the teachers found that it took just about twice as long to assign a lesson to Group B as to assign a lesson to Group A. In the technique of composition, Group A proceeded from two to four times as fast as Group B. For example, in teach-

ing punctuation and the structure of the compound sentence, only one day was required for Group A, while four days were required for Group B.

At the end of the semester, a series of tests were given to these groups. The first was memory work based on the rules of punctuation. The time allotment was the same for each group. Ninety-three and four-tenths per cent of Group A and 68.4 per cent of Group B scored 100 per cent in this test, while 6.6 per cent of Group A and 31.5 per cent of Group B scored from 50 to 99 per cent or lower.

Test No. 2 was the same as Test No. 1, except that each group was given as much time as was necessary to complete the work. Group B took about twice as much time as Group A. Fifty-five and one-tenth per cent of Group A and 47.3 per cent of Group B scored 100 per cent in this test. No one in either group scored less than 70 per cent.

Test No. 3 was a test on the application of the knowledge gained from the study of the rules of punctuation. The time was the same for both sections and was sufficient to give all time enough to complete the test. Eight and six-tenths per cent of Group A and 23 per cent of Group B scored 100 per cent in this test, while no one in either group scored less than 70 per cent. The interesting feature here is that in the application of knowledge gained in preliminary study Group B had a better record than Group A. The records of these two groups of students as here described indicate that it would be unfortunate indeed were the impression to exist that these students can be classified as A and B citizens.

It is interesting to note that only 5.6 per cent of the English I pupils in 1921 failed, while 11.6 per cent of the pupils in the 1920 class in the same subject failed. In other words, the percentage of failures was reduced by exactly six points. This was in spite of the fact that the average number of students in the sections in 1921 was twenty-seven as against twenty-three in 1920.

A greater effort should be made to impress teachers with the fact that teaching school involves more than assigning lessons, holding recitations, and grading pupils. The point may be illustrated by reference to the work of two of our high-school teachers.

One feels that her responsibility does not lie entirely in drilling into the students a knowledge of the subject so that they can secure a passing grade on tests and examinations. She feels that she has the additional responsibility of securing work from the lazy and indifferent students and that it is her duty as a teacher to analyze the native ability of the individuals in her classes and to grade them according to a sliding scale based somewhat upon this ability. She secures results by working with students and with parents, by looking up school records, by analyzing students' interests through conferences with them, by determining their ability through tests, and by studying their home conditions.

The second teacher takes the attitude that the students should know what they are in school for, that they are told under what conditions they may expect to get a passing average in a given subject, and that if they do not respond according to the plan laid down for them, the responsibility is wholly theirs. She feels that there is no good reason why time should be given to them if they are not in the state of mind for work. Of course, the danger in the second case lies in the possibility of mistaking a student's attitude; of interpreting as laziness what may well be lack of ability in a given subject; of mistaking for indifference what may be defective hearing, defective vision, or poor general health; and of mistaking for lack of interest what may be due to lack of nourishment, insufficient rest, or insufficient time for preparation on the part of those who find it necessary to contribute to family support and hence work during a part of the day. These conditions cannot be accurately determined without a thorough knowledge of the pupil, his habits, and his home.

Teachers do not come out of our training schools inspired with this phase of a teacher's responsibility. The conviction is growing that training schools should exercise selection to a greater extent. Not all of those who enter training schools are fitted in temperament, in interest, and in general make-up for the profession of teaching. These people should be directed into some other line of activity early in their course by those in charge of the training courses. It is a simple matter of justice to them and to the profession.

THE OCCUPATIONS OF HIGH-SCHOOL GRADUATES AND NON-GRADUATES[1]

E. L. THORNDIKE AND P. M. SYMONDS
Teachers College, Columbia University

High-school graduates make their life-careers in occupations that are among the more intellectual and more refined. Any observing high-school principal or teacher knows that his pupils very rarely become farm laborers, factory hands, cabmen, domestic servants, or salesgirls. Just how they are distributed, however, is not known for the country at large or for even any large geographical unit or large city.

Investigations have been made by Shallies (1913), Mitchell (1914), Counts (1915), Inglis (1915), Koons (1917), and in connection with the Elyria Survey (1918) with the following results.

Shallies reports that of 734 students graduating from seventy-five high schools in New York state in June, 1908, 33.6 per cent went to college, 16.6 per cent to normal school, 5.4 per cent to professional school; 16.0 per cent were engaged in teaching, 11.7 per cent in business, 8.5 per cent in trade; 5.6 per cent were at home, and 2.6 per cent were unknown as to their careers.

The letter of inquiry which secured these facts was sent in March, 1911, to the principals of certain high schools, one or more of whose graduates in 1908 had graduated from a normal school in 1910. This procedure served to select high-school graduates who went on into normal schools in excess of their representation in the state in general. How many of the principals who were asked to report the facts did so is not stated. Probably not all reported, and those who did probably represented schools somewhat above the average in the dignity of their graduates' careers.

[1] The investigation reported in this article was aided by a grant from the Commonwealth Fund.

Mitchell reports the distribution of 845[1] graduates from forty-eight high schools in Iowa in 1908 as follows:

	Percentage
Agriculture	5.8
Professions	4.5
Business	3.8
Commercial employees	16.1
Teaching	30.0
Studying in liberal arts colleges	16.7
Girls married	17.0
Musicians	3.2
At home	3.0

Counts, studying the immediate futures of 20,389 graduates in 1913 from high schools in the North Central Association, reports the following distribution:

	Percentage
College	26.9
Commercial school	3.7
Trades	3.4
Farming	2.9
Normal school	7.3
Business	10.1
At home	15.1
Other occupations	14.3
Professions*	3.3
Domestic economy and agriculture	2.4
Teaching	4.3
Unknown	6.3

* This presumably means, at least to some extent, students in professional schools.

The primary data used by Counts were voluntary returns sent in by the principals of 1,000 high schools during the first half of the school year 1913–14. They were asked to report the number of the boys and girls in the previous year's graduating class belonging in each of the following groups: college, commercial school, trades, farming, normal school, business, at home, other occupations, medicine, dentistry, engineering, pharmacy, law, domestic economy, agriculture, and unknown. This request is somewhat ambiguous, and, oddly enough, omits teaching, the one occupation most widely undertaken by high-school girls in the year follow-

[1] The numbers for the groups specified total 841, and this total has been used in computing the percentages.

ing graduation. Counts interprets medicine, dentistry, etc., as professions, but they may oftener mean students preparing for these professions.

Inglis computes, from the data of the United States Bureau of Education for 1912, that the central tendency by states is for a trifle over one-half of the high-school graduates to continue in colleges, normal schools, or other institutions of higher education.

Koons studied the graduates of a single high school (Murphysboro, Illinois) which was established in 1901. Up to January, 1916, there were 269 graduates, 117 boys and 152 girls. The occupations of these are reported by Koons as shown in the following table. For comparison similar facts are given for 117 boys and 152 girls selected at random from those who left school before graduation. The entries are expressed in percentages.

	Graduates		Non-Graduates	
	Boys	Girls	Boys	Girls
Agriculture	3.4	0.0	9.4	0.0
Business	23.0	15.1	23.1	7.2
Industries	14.5	0.0	26.5	5.3
Housewives	0.0	46.7	0.0	46.1
Teaching	6.9	21.0	0.9	3.3
Professions	12.0	0.0	1.7	0.0
Students	23.1	2.6	0.9	1.3
Miscellaneous	7.7	2.0	12.0	4.6
At home	0.0	9.2	0.0	14.5
No occupation	2.6	0.0	2.6	0.0
Occupation not known	3.4	2.0	21.4	13.2
Deceased	3.4	1.3	1.7	4.0

The Elyria Survey, reporting on 51 boys and 97 girls graduating in 1915 and 1916, finds that the percentage distribution on the basis of occupation within a year or two after graduation is as follows:

	Boys	Girls
Engaged in further study	35.3	34.0
Teaching	0.0	22.7
Trade (all in banks)	7.8	0.0
Manufacturing and mechanical industries	37.3	2.1
Milliner	0.0	2.1
Clerical occupations	11.8	18.6
Married	0.0	5.2
At home	2.0	13.5
Miscellaneous	5.9	2.1

In the spring of 1917 forty-six boys who entered the Elyria High School in the fall of 1913 but had left school were distributed as follows:

	Percentage
Agriculture	10.9
Trade	26.1
Industry	39.1
Transportation	10.9
Bell boy	2.2
Unknown	8.7
Loafing	2.2

Thirty girls of the same group who had left school were distributed as follows:

	Percentage
Industry	10.0
Telephone operator	26.6
Clerical work	30.0
Nurse	3.3
At home	20.0
Married	6.7
Unknown	3.3

These studies are valuable in helping to define our knowledge of the sort of life-work in which high-school students will engage, but they are limited in two important ways. They do not keep track of the individuals long enough for us to establish their eventual status; and the classifications employed (agriculture, business, industries) are too general. Agriculture may mean that a person operates a farm worth $50,000 and employs ten men or that he is a farm laborer; business may mean an errand boy or a bank president.

An attempt has been made to overcome these limitations by searching for representative high schools which have published or unpublished lists of their alumni for many years back and which report occupations in detail. Information from the following institutions seemed especially suited to our purpose: The Ottawa Township High School, Ottawa, Illinois; data for the classes from 1878 to 1914. The Labette County High School, Altamont, Kansas; data for the classes from 1896 to 1915. The Atchison County High School, Effingham, Kansas; data for the classes from

1892 to 1916. The Pontiac Township High School, Pontiac, Illinois; data for the classes from 1895 to 1916. The Gouverneur Schools, Gouverneur, New York; data for the classes from 1888 to 1915. The Auburn Academic High School, Auburn, New York; data for the classes from 1868 to 1906.

We have collated the facts for graduates from 1892 to 1901 (1895 to 1901 for Pontiac and 1896 to 1901 for Labette County) and also for graduates from 1902 to 1911 (1902 to 1906 for Auburn). The former group represents graduates most of whom had more than ten years after graduation in which to establish themselves in life and deserves special attention.

The occupations mentioned are given in full, partly because these details give a concrete sense of the work of high-school graduates and partly to permit the reader to classify them as he wishes. They are also classified into groups. The detailed lists presented in Tables I and II show that the high-school graduates of 1892 to 1901 engaged in the main in the top quarter of the country's work as rated on the basis of desirability and importance. In Table I the ninety-nine cases labeled "business" are all from two schools, Ottawa and Auburn: and the more detailed records of the other four schools show that only a very small percentage of these ninety-nine are engaged as porters, drivers, and the like. Even if we regard the "unknowns" as much inferior to the "knowns," and estimate the number of "farmers" who are really farm laborers very generously, we have out of 466 males, only 41 who may be doing work below the level of a stenographer, salesman, or electrician (3 in Army and Navy, 6 in the factory group, 9 out of 33 farmers, 1 lumberman, 2 out of 7 in the manufacturing group, 8 out of 99 in business, and 12 out of 24 unknowns).

Let the reader arrange the occupations of the 1892 to 1901 male graduates along a scale of seven units in which one represents an unskilled day laborer; four, a blacksmith, carpenter, mason, or plumber; seven, a doctor, lawyer, engineer, or operator of an industrial or commercial plant with an income of $3,500 or more. Two and three represent equal steps between one and four. Five and six represent equal steps between four and seven. Distribute the "farmers," "unknowns," and other doubtful cases as

seems just. It will probably be found that more than one-half of the male high-school graduates will be placed in the two highest compartments, and more than four-fifths of them in the three

TABLE I*

PERCENTAGE DISTRIBUTION, ON BASIS OF OCCUPATION, OF MALE GRADUATES FROM SIX HIGH SCHOOLS

	1892–1901	1902–1911
Artist, 1, 0; architecture, 2, 1; cartoonist, 1, 0; chorister, 0, 1; music, 1, 2; music teacher, 0, 1; stage, 1, 0	1.3	0.8
Accountant, 1, 1; auditor, 2, 0; banking, 14, 2; bank cashier, 3, 4; bank solicitor, 1, 0; city treasurer, 1, 0; post-office inspector, 1, 0; postmaster, 2, 2; registrar, 2, 0; county treasurer, 0, 1	5.8	1.5
Army, 1, 0; Navy, 2, 1	0.6	0.2
Advertising agent, 0, 1; business, 99, 131; book business, 2, 0; business manager, 0, 1; druggist, 4, 3; hardware, 0, 3; insurance, 0, 1; jeweler, 0, 1; lumber dealer, 1, 0; music dealer, 1, 0; manager of coal office, 0, 2; manager of grocery depot, 2, 2; manager farmer's elevator, 0, 1; manager of show, 0, 1; real estate, 6, 4; merchant, 4, 7; salesman, 6, 4; shoe dealer, 0, 1; shoe salesman, 0, 1; traveling, 1, 0	27.0	24.7
Clergyman, 11, 3; dentistry, 6, 2; editor, 5, 0; education, 18, 4; entomology, 0, 1; journalism, 5, 3; law, 57, 14; medicine, 19, 5; missionary, 1, 0; pastor, 1, 0; pathology, 1, 0; principal of school, 0, 1; physical director, 0, 1; physician, 17, 5; professor, 1, 1; student, 1, 105; superintendent of schools, 2, 2; teaching, 7, 37; Y.M.C.A., 3, 1	33.3	27.9
Chemistry, 2, 5; civil engineer, 7, 7; engineering, 14, 9; electrical engineer, 1, 1; mechanical engineer, 1, 1; mining engineer, 0, 3; architectural engineer, 0, 1	5.4	4.1
Draughting, 2, 2; electricity, 2, 9; forestry service, 0, 1; inspector (meat and dairy), 2, 0; machinist, 2, 2; painter, 0, 1; pharmacy, 2, 5; plumbing, 1, 1; photography, 3, 0; telegraphy, 1, 0; surveyor, 0, 1	3.2	3.3
Bookkeeping, 7, 9; billing clerk, 0, 1; cashier, 1, 2; clerking, 11, 20; drug clerk, 0, 1; government clerk, 0, 1; groceryman, 0, 1; mail clerk, 3, 8; postal service, 1, 0; Santa Fe office, 0, 1; stenographer, 1, 14; secretary, 1, 0; railroad employee, 4, 1	6.2	8.9
Factory, 1, 1; chauffeur, 0, 1; deliverer, 0, 1; mail carrier, 1, 3; mechanic, 4, 1; work in lumberyard, 0, 1; working for coal company, 0, 1	1.3	1.4
Farming, 33, 77	7.1	11.6
Lumberman, 1, 3	0.2	0.5
Manufacturing, 7, 2	1.5	0.3
Agricultural agent, 4, 2; internal revenue officer, 1, 0; osteopath, 1, 0; tailor, 1, 0; United States mail, 2, 4; undertaker, 0, 1; veterinary, 0, 1	1.9	1.2
At home, 0, 3	0.0	0.5
Not stated, 23, 83; unknown, 1, 6	5.1	13.4

* The wording of the original is followed in the list of occupations. The numbers after each occupation are the actual occurrences, the first being for the decade 1892 to 1901, the second for the decade 1902 to 1911. The totals are: 1892 to 1901, 466; 1902 to 1911, 664. The numbers in the columns at the right are percentages of the total. Thus, of the graduates from 1892 to 1901, 1.3 per cent are artists, architects, etc.; 5.8 per cent are accountants, auditors, etc.

highest. The occupations of the women may be similarly distributed by using a scale in which one represents an unskilled laborer, a dish washer or factory hand of low grade; four, a clerk or typist; seven, a teacher in high school or an operator of a store or shop with an income of $2,000 or more. This procedure will probably result in placing nearly three-fifths of the unmarried women

TABLE II*

PERCENTAGE DISTRIBUTION, ON BASIS OF OCCUPATION, OF FEMALE GRADUATES FROM SIX HIGH SCHOOLS

	ALL WOMEN		UNMARRIED WOMEN	
	1892–1901	1902–1911	1892–1901	1902–1911
Artist, 0, 2; music, 7, 10; musician, 1, 0; music teacher, 6, 4; stage, 1, 0; supervisor of music, 1, 0	1.9	1.5	3.8	2.5
Business, 80, 63; abstract office, 1, 0; music dealer, 1, 0; deputy register of deeds, 0, 1; superintendent, 0, 1	9.5	6.2	19.4	10.3
Bookkeeper, 13, 16; clerk, 13, 15; office work, 0, 1; private secretary, 2, 1; postal clerk, 0, 2; saleslady, 1, 2; secretary, 0, 1; stenography, 24, 37; assistant postmistress, 1, 0	6.3	7.1	12.8	11.9
Chautauqua system, 0, 1; education, 107, 22; librarian, 5, 5; married teacher, 3, 4; student, 3, 70; settlement work, 0, 1; teaching, 44, 204	18.9	29.3	38.4	48.7
Nursing, 6, 12; married nurse, 1, 0; osteopathy, 1, 0; pharmacy, 1, 0	1.0	1.1	2.1	1.9
Dressmaking, 2, 1; millinery, 1, 1	0.3	0.2	0.7	0.3
Domestic, 0, 1; housekeeping, 2, 0	0.2	0.1	0.5	0.2
Machine operator, 1, 0	0.1	0.0	0.2	0.0
Married, 437, 417	50.9	39.8	.....	.....
At home, 36, 94; in Japan, 1, 0; unemployed, 34, 18	8.3	10.7	16.8	17.7
Not stated, 18, 34; unknown, 4, 7	2.6	3.9	5.2	6.5

* The numbers after each occupation are the actual occurrences when all women are included, the first being for the decade 1892 to 1901, the second for the decade 1902 to 1911. The totals are: all women, 1892 to 1901, 859; 1902 to 1911, 1,048; unmarried women, 1892 to 1901, 421; 1902 to 1911, 631.

graduates in the two highest compartments and nearly nine-tenths of them in the three highest.

High-school graduates (male) have over ten times their quota in the professions. According to the census of 1900, in the general male population twenty-five to thirty-four years of age there were just about as many draymen, hackmen, and teamsters as there were in the four professions plus journalism and dentistry; but

among the high-school graduates there were possibly one-sixtieth as many. Among women in general of the ages twenty-five to thirty-four, dressmakers and milliners outnumber teachers considerably, but among the high-school graduates teachers are about fifty times as numerous as milliners and dressmakers together.

TABLE III*

PERCENTAGE DISTRIBUTION, ON BASIS OF OCCUPATION, OF GRADUATES AND NON-GRADUATES OF THE NORTHEAST HIGH SCHOOL, PHILADELPHIA, 1893–1911

	Graduates	Non-Graduates
Actors, 0.0, 0.2; artists and designers, 3.2, 0.7; engravers, 0.2, 0.4; musicians, 0.3, 0.4	3.7	1.7
Accountants, 0.6, 0.4; bankers and stockbrokers, 1.1, 0.5; builders, 0.9, 0.4; contractors, 0.8, 0.2	3.4	1.5
Architects and architectural draughtsmen	3.2	.9
Advertising solicitors and writers, 0.5, 0.7; commercial travelers, etc., 3.0, 7.3; insurance agents, etc., 1.4, 1.1	4.9	9.1
Brewers, 0.3, 0.2; druggists, 0.6, 0.9; manufacturers, 2.7, 2.0; merchants, 1.7, 2.4	5.3	5.5
Bookkeepers, 2.7, 2.0; clerks, etc., 5.3, 8.2; private secretaries, 0.3, 0.5; stenographers, 0.8, 0.0	9.1	10.7
Chemists, 1.7, 0.4; engineers, 8.8, 2.4	10.5	2.8
Clergymen, 0.4, 0.2; dentists, 1.1, 0.4; journalists, 1.5, 0.4; physicians and surgeons, 2.7, 0.9; teachers, 2.4, 0.4; consuls and lawyers, 2.3, 0.7	10.4	3.0
Draughtsmen, 8.6, 3.5; decorators, 0.8, 0.4; electricians, 5.3, 0.2; instrument makers, 0.8, 0.0; jewelers, 0.1, 0.2; machinists and pattern makers, 1.5, 0.9; photographers, 0.6, 0.0; surveyors, rodmen, and transitmen, 2.1, 0.7	19.8	5.9
Osteopaths, 0.0, 0.4; veterinary surgeons, 0.1, 0.4	0.1	0.8
Plumbers, 0.4, 0.7; printers, 0.5, 0.9; tailors, 0.1, 0.0	1.0	1.6
Students	15.7	1.5
Supervisors, 0.4, 0.0; superintendents, foremen, and managers, 1.9, 5.1	2.3	5.1
Other occupations and not reported	10.6	50.4

* The first number after each occupation is the percentage of living graduates; the second, the percentage of living non-graduates.

The life-careers of non-graduates cannot be pictured with surety. We have been unable to find records save those quoted from Koons and the Elyria Survey and those given in Table III comparing graduates and non-graduates of the Northeast High School of Philadelphia, a school of rather special nature and history. The one fact which is certain is that the non-graduate takes, in respect to occupation, a position intermediate between the graduate and the person who has not attended high school.

From both the details and the grouped results shown in Table III[1] it is obvious that, with any reasonable distribution of the "unknowns," the non-graduates will be relatively less frequent than the graduates in the more dignified and important occupations and more frequent in those less dignified and important. This is shown also by the data quoted from Koons and the Elyria Survey.

We have shown elsewhere[2] that from 1890 to 1918 the percentage of children reaching a given age who go to high school has trebled and that the percentage of children reaching a given age who graduate from high school has increased even more. It seems unlikely that the enviable status shown for graduates in 1892 to 1901 in respect to occupations can be fully maintained now and in the future. To maintain it would require that the favored occupations be practically closed to all but high-school graduates. This may perhaps be taking place. The supply of high-school graduates is increasing so fast that any profession or reputable semiprofession may demand such. Even if it is not fully maintained—indeed, even if there is a considerable movement downward—the high-school graduates will still have a notably high occupational status; the correlation between amount of education and dignity of occupation will still be close.

[1] These facts are compiled from the *Catalog of the Northeast High School*, Philadelphia, 1912–13, and the *Handbook of the Alumni Association of the Northeast Manual Training High School*, Philadelphia, 1913.

[2] E. L. Thorndike, "Changes in the Quality of the Pupils Entering High School," *School Review*, XXX (May, 1922), 355–59.

INTELLIGENCE AS A FACTOR IN THE ELECTION OF HIGH-SCHOOL SUBJECTS

S. R. POWERS
University of Minnesota

With the large freedom of election now provided for students in high schools, it seems appropriate to inquire to what extent the intelligence level of the student is a factor in determining the subjects elected. Are there subjects which attract especially students of high intellectual ability and others which attract students of inferior mental ability? The use of intelligence tests makes it possible to give partial answers to these questions.

The data used in this study are part of the material collected in the survey of the high school at Fort Smith, Arkansas. About 850 students were enrolled in this high school. Very little provision was made for educational or vocational guidance. The subjects which the students elected were chosen almost entirely by the students themselves or with the help of their parents.

The students were given the Otis Intelligence Test, and from the results the quartile ranges for each class group were determined. Table I shows the fourth and the first quartile ranges for each class group and the number of cases within each. The ordinary class designation is used. The table is read as follows: In the fourth quartile of the IA class the scores range from 145 to 178; in the first quartile, from 53 to 109; there were 48 cases in each quartile.

Table II shows the number of elections made in each subject by the students who ranked in the fourth and first quartiles of each class. English, algebra, and plane geometry are not shown in this table for the reason that they were required of all students. The table is read as follows: In the IA class 33 students in the fourth quartile and 35 students in the first quartile elected history.

The total number of elections recorded in Table II is 766. Of these, 406 were made by students in the fourth quartiles and 360 by students in the first quartiles. Very few students from the first

TABLE I

RANGE OF FOURTH AND FIRST QUARTILE SCORES OF EACH CLASS ON THE OTIS INTELLIGENCE TEST AND THE NUMBER OF CASES IN EACH QUARTILE GROUP

CLASS	FOURTH QUARTILE		FIRST QUARTILE	
	Range	Number of Cases	Range	Number of Cases
IA	145–178	48	53–109	48
IIB	146–178	17	56–112	17
IIA	154–195	23	74–114	23
IIIB	158–187	12	23–114	12
IIIA	152–199	20	74–124	20
IVB	164–187	10	82–130	10
IVA	171–209	26	88–137	26
Total	.....	156	.....	156

TABLE II

NUMBER OF ELECTIONS IN EACH OF THE ELECTIVE SUBJECTS BY THE STUDENTS IN THE FOURTH AND FIRST QUARTILES OF EACH CLASS

	I A		II B AND II A		III B AND III A		IV B AND IV A		TOTAL	
	Fourth Quartile	First Quartile	Fourth Quartile	First Quartile	Fourth Quartile	First Quartile	Fourth Quartile	First Quartile	Fourth Quartile	First Quartile
History	33	35	27	23	16	17	25	34	101	109
Latin	22	8	9	5	13	2	14	2	58	17
Spanish	3	3	3	1	5	2	1	3	12	9
French	1	1	7	4	12	6	14	7	34	18
General science	24	15	14	4	3	3	0	0	41	22
Biology	0	0	1	3	2	2	5	6	8	11
Chemistry	0	0	0	0	8	1	6	4	14	5
Physics	0	0	0	0	0	0	6	1	6	1
Typewriting	1	0	0	4	7	8	6	9	14	21
Bookkeeping	0	1	0	3	3	4	3	6	6	14
Commercial arithmetic	3	2	0	2	1	2	3	3	7	9
Commercial geography	0	0	2	1	1	1	2	5	5	7
Shorthand	0	0	0	2	6	9	4	7	10	18
Commercial spelling	0	0	0	0	0	0	2	0	2	0
Advanced algebra	0	0	0	0	4	0	5	1	9	1
Solid geometry	0	0	0	0	0	0	11	1	11	1
Manual training	7	8	10	5	0	0	0	0	17	13
Mechanical drawing	7	10	3	2	0	0	1	0	11	12
Domestic art	6	16	10	22	9	15	11	13	36	66
Fine art	1	1	1	3	0	0	2	1	4	5
Music	0	0	0	1	0	0	0	0	0	1

quartiles elected Latin, and only four students from the first quartiles as compared with twenty-seven from the fourth quartiles elected third- and fourth-year Latin. Modern foreign languages show a similar but less marked tendency to attract students from the fourth quartiles. General science, physics, and chemistry each seem to be more popular with the students of highest ability. Domestic art was elected by nearly twice as many students in the first quartiles as in the fourth. All commercial subjects also were popular with first-quartile students.

TABLE III

NUMBER AND PERCENTAGE OF ELECTIONS IN EACH SUBJECT GROUP BY THE STUDENTS IN THE FOURTH AND FIRST QUARTILES

	NUMBER		TOTAL	PERCENTAGE	
	Fourth Quartiles	First Quartiles		Fourth Quartiles	First Quartiles
Advanced algebra and solid geometry	20	2	22	90.9	9.1
Latin	58	17	75	77.3	22.7
Natural science	69	39	108	63.9	36.1
Spanish and French	46	27	73	63.0	37.0
Manual training and mechanical drawing	28	25	53	52.8	47.2
History	101	109	210	48.1	51.9
Commercial subjects	44	69	113	38.9	61.1
Domestic art	36	66	102	35.3	64.7

Table III is prepared from the data in Table II, the corresponding quartiles of each class group being combined. It shows, therefore, the total number of elections made by the students of the fourth and first quartiles in each subject group. General science, biology, physics, and chemistry are grouped under natural science; and shorthand, typewriting, bookkeeping, commercial arithmetic, commercial geography, and commercial spelling are grouped under commercial subjects. In order that these figures may be readily compared, they have been converted into percentages. The table reads as follows: A total of 20 students from the fourth quartiles and 2 from the first quartiles of all classes elected advanced algebra and solid geometry; 90.9 per cent of the students who elected advanced algebra and solid geometry were in the fourth quartiles;

9.1 per cent, in the first quartiles. The facts of Table III are shown graphically in Figure 1.

Educational and vocational guidance was almost entirely neglected in the school surveyed. However, the traditions of certain subjects made them popular with students of one intelligence level

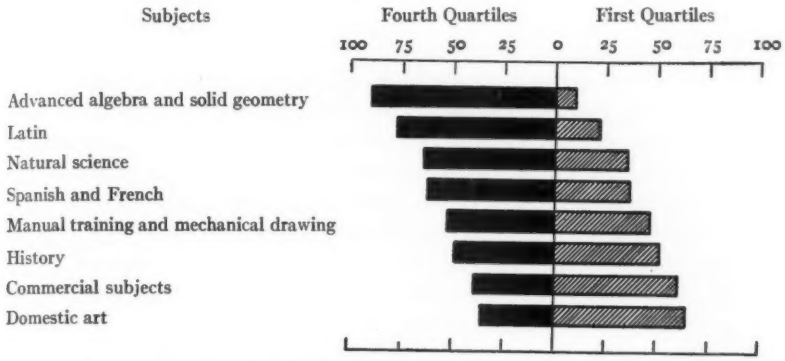

FIG. 1.—Elections per hundred in each subject group by students in the first and fourth quartiles.

and unpopular with those of another level. From the records obtained from this school it appears that students possessing superior intelligence are attracted to those subjects which make the largest intellectual demands, while students of inferior intelligence are attracted to those subjects which make larger demands on manual dexterity and lesser demands on intellectual capacity.

HONOR SOCIETIES IN SECONDARY SCHOOLS

EDWARD RYNEARSON
Fifth Avenue High School, Pittsburgh

Student clubs uncontrolled may interfere with the progress of a high school just as adult social organizations sometimes interfere with progress in communities; but, rightly guided and guarded, they may become the means of intellectual, civic, and moral uplift of the student body. The high-school age is the period of life when organizations make a strong appeal. Clubs or societies have been formed for nearly every activity, real or imaginary, in the high school. The badges and other insignia are often objects of envy to outsiders. The athletes have been called up before the school, given their letters, and crowned in the presence of the rooters. Their names often appear in large headlines in the town or city papers, and they are sent to the colleges by loyal alumni. The members of the debating teams appear before the public. Those active in literary societies come before the school on many occasions. Pupils interested in music represent the school in the chorus or orchestra. The school plays offer opportunities for those with histrionic ability to appear before the public and to receive the applause of the school and glowing accounts in the newspapers.

These various activities hold the center of the stage in school life. Pure scholarship, unfortunately, is not often on the list. For some time educators have felt the need of some definite recognition of, and incentive to, real scholarship in our secondary schools. These schools, public and private, all over the country have attempted to recognize students of high standing by such methods as posting their names in the main corridor, granting special privileges or credits, excusing them earlier from school, giving badges, hanging a pennant or banner on the door of the room whose pupils have achieved the high standard, sending letters of congratulations to the parents, or giving special mention at commencement. These

are the methods of individual schools. In many instances the schools of a certain type (preparatory) or district (city high schools) have united and agreed upon the same standard of scholarship and similar methods of recognition for the entire group of schools. Thus the honor society had its birth.

So far as I can determine, the first scholarship honor society (Phi Beta Sigma) was founded in 1900 by Dr. William B. Owen, of the Chicago Normal College, when he was principal of the old South Side Academy, Chicago.

This new society filled a long-felt need and was intended to do for this school what Phi Beta Kappa was doing for the colleges. The idea spread rapidly, and honor societies sprang up all over the country. The Cum Laude Society was founded in 1906 at the Tome School, Fort Deposit, Maryland, by Dr. A. W. Harris. At first it was called the Alpha Delta Tau Fraternity, but the name was changed to avoid confusion with the Greek letter fraternities of an entirely different character. The Oasis Society was also organized in 1906 in the Polytechnic Preparatory Country Day School of Brooklyn. Next came the Arista Society which was organized in January, 1910, by the late Dr. W. B. Gunnison, of the Erasmus Hall High School, Brooklyn. In the same year the students of the Manual Arts High School of Los Angeles, California, suggested some recognition for those who were not members of the dramatic, athletic, or musical organizations of the school. The Mimerian Society was the result. The movement spread to other schools in the state, and, according to a letter from Principal Burchman, of the Long Beach Polytechnic High School, the California Scholarship Federation of thirty-five high schools has recently been organized. In 1916 the Pro Merito Society was established by thirty or more head masters of western Massachusetts, and at present about seventy-five high schools have established chapters. In 1917, at the suggestion of Dr. Shiels, superintendent of schools, Los Angeles, California, the high-school principals of Los Angeles petitioned the Board of Education to organize the Ephoebian Society, the membership to be composed of graduates from the different high schools who were among the first 10 per cent on the basis of scholarship in their schools.

Doubtless many similar societies have been organized, but these suffice to show that the need of recognition of scholarship was felt from Massachusetts to California.

Naturally, societies in so widely separated localities would be formed to meet the local needs. They, therefore, vary widely in purpose and in governing rules. The Arista Society, of New York City, will serve to illustrate the general character. At present twenty-two high schools of Greater New York have chapters, and three others have modifications of it.

Each chapter is governed by two distinct bodies, the senate and the assembly, and is under the absolute control of the principal. The senate is composed of the teacher members selected by the principal and varies in number according to the size of the faculty. The assembly is made up of students who have been selected in accordance with the constitution.

When a new chapter is organized, the senate prepares a list of students from the members of the third- and fourth-year classes, stressing with equal emphasis the following elements: character, scholarship, and ability to serve, as determined by the student's record in the first and second years of high school. No student's name is placed on this list unless he has had in scholarship a mark of 70 per cent in all of his prepared subjects during the term previous to the election. The schools vary in regard to the scholarship requirement. When the list of those eligible from the standpoint of scholarship has been prepared, many schools ask all of the teachers who have had anything to do with the students to express an opinion concerning the members of the group with respect to character and ability to serve. The senate then revises the list and eliminates from it all who do not meet the accepted standards. This revised list will then include the names of the students from whom the senate will elect the assembly. At succeeding elections the senate prepares a list of eligible pupils to be submitted to the assembly for its members to vote upon and to select the new members of the assembly.

The Arista pupils have been found efficient in serving on monitorial assignments, in coaching deficient pupils, in editing the school handbook, and in performing such other assignments as are made by the principal or the teacher in charge of the senate.

Most of the high schools of New York City have also introduced a Junior Arista for the pupils in the second, third, and fourth semesters. This arouses an interest in the Senior Arista very early in the high-school course and emphasizes scholarship, character, and ability to serve as the main elements of an all-round high-school citizen. The Junior Arista is simply a modification of the Senior Arista, suited to the pupils in the schools.

The various societies which have been formed throughout the country are in general similar to the Arista Society; their differences are largely in details of management. It may be well to note some of these differences.

The Cum Laude Society is found mainly in private schools, although during the past year it has established chapters in some of the most prominent high schools. This society stands essentially for scholarship.

The Pro Merito Society is found only in Class A secondary schools of Massachusetts. As in the Cum Laude Society, scholarship is the principal requisite for membership.

The Oasis Society is practically a Senior society, as only five members of the Junior class are eligible, and these are not selected until near the end of the school year. The members are chosen by the point system, that is, so many points are given for service as editor, team captain, or manager, or for public declamation or oration.

The Mimerian Society is a scholarship organization. To be eligible a pupil must in one semester have four A's in subjects yielding four credits.

The Long Beach Scholarship Society attempts to reward effort on the part of the average pupil. Membership is determined by the number of points made in certain outside activities in addition to those made in scholarship. Those pupils who succeed in maintaining membership in the society during eleven quarters, two of which are in the Senior year and one in the last quarter of the year, have the Honor Scholarship Seal imprinted on their diplomas and college certificates. To attain this recognition, a high standard of achievement must be maintained to the very end of the course.

The Seal of Soldan High School (St. Louis, Missouri) is awarded to pupils who distinguish themselves in some extra-curriculum

activity. While no scholarship standard is fixed, the faculty may protest those who have neglected their school work in their zeal for the clubs or who have shown poor citizenship by their general school attitude.

The Ephoebian Society is a graduate organization formed to discuss questions of civic interest at the annual banquet with the high-school principals, superintendent, and members of the board of education. It is wise to enlist the services of the coming leaders in an organization that will repay the community in better citizenship and cleaner living for the opportunities that have been given them in the schools.

As one reads the list of objectives of the various societies one finds that with some slight differences in government, etc., these societies have as underlying principles character, scholarship, leadership, and service. Only two of the societies, the Cum Laude and the Pro Merito, have scholarship only as the basis for membership.

Do these various societies meet the need? The founders or officers of these societies who have watched the development from the beginning are the ones most competent to answer the question. Dr. Owen says:

> I have not been disappointed in the value of the work of the society. I did not expect that such emphasis as this association could bring would offset the natural enthusiasm for those who excel in athletics, or the ambition of the normal boy to win distinction in athletics. I feel, however, that formal public recognition by the school of those who are distinguished in other school work would call attention in the right way to the importance of scholarship. This result happens wherever the society exists. I believe the students and the faculty approve of such a society.

William E. Golden, founder of the Oasis Society, says:

> All of the boys of the school are eager for the honor of election and work for it. Athletes discover that they can speak, and "grinds" that they also are athletes. All of this seems to us to be highly desirable.

Principal J. D. Dillingham, Newtown High School, president of the Arista Principals' Council says:

> From my experience with student organizations I feel justified in saying that this is the best kind of high-school honor society that I have been able to find. In the Newtown High School we feel that we are devoting a great deal

of time and thought to the emphasis of scholarship, and one of our most effective agencies in this kind of scholarship has been the Arista. Our local colleges are taking Arista membership and service into account in the award of scholarships and other honors.

It is to be noted that honor societies sprang up in many widely different sections independently and almost simultaneously. If the society with many chapters commends itself to the schools of a certain district because each is helped by the other, a nation-wide society ought to be a stronger organization and receive the support of all of the schools that believe in such a society. Will not one common badge for the entire country be more valuable than many different local badges? In other words, if the fundamental principle of the honor society is sound, it should be national in its application; a national honor society of secondary schools is a logical outgrowth of the wisdom and experience of the past fifteen or twenty years.

When the principals from all sections of the country come together at the annual meeting of the National Association of Secondary School Principals they form a clearing-house for the many new plans that are in operation in their respective sections. Naturally the honor societies are given some consideration.

After a brief discussion at the Chicago meeting of the Association in 1919, J. G. Masters, of Omaha, was appointed chairman of the committee on a national honor society. A report accompanied by an outline of a constitution was made the following year in Cleveland. The Association favored the formation of a national honor society and authorized the president to appoint a committee on constitution and organization that should report in 1921. The committee consisted of J. G. Masters, chairman, Omaha, Nebraska, Merle Prunty, Tulsa, Oklahoma, C. Briggs, Lakewood, Ohio, George Buck, Indianapolis, Indiana, H. V. Church, Cicero, Illinois, and Edward Rynearson, Pittsburgh, Pennsylvania. Messrs. Masters and Buck were unable to be present at the Atlantic City meeting (1921), and E. S. Eaton, Youngstown, Ohio, and M. R. McDaniel, Oak Park, Illinois, were added to the committee which made a report that was adopted by the Association.

In drawing up the constitution the committee was faced with the necessity of providing an organization broad enough to meet

all of the varying needs of these numerous societies. Scholarship only seemed too narrow; where tried, the society had, in the words of Dr. Powell, "got the stigma of being 'high-browish.'" On the other hand, there was great danger of according too little recognition to scholarship. After considerable discussion, the committee fixed upon character, leadership, scholarship, and service as the fundamental virtues most useful to society and therefore most worthy of encouragement. The constitution lays down general rules regarding officers, eligibility, etc., but, in the main, leaves the details of government to each chapter. The standards of the schools in which chapters may be established must be equal to those of schools accredited by such agencies as the North Central Association of Colleges and Secondary Schools. Authority is vested in a national council of nine members. The first council was appointed by Merle Prunty, president of the National Association of Secondary School Principals.

An application from any secondary school for a charter must be accompanied by ten copies of the constitution of the local society and a charter fee of five dollars. These should be sent to Secretary H. V. Church, Cicero, Illinois, who will send a copy of the constitution to each member of the national council. Upon their approval the charter will be granted. More than fifty secondary schools have already filed applications.

The initiation exercises may be made the occasion of celebrating some school or town anniversary. These exercises should always be public in order that no one will confuse the society with a secret fraternity. Again, the parents of the selected pupils will be drawn closer to the school.

The charges given to the newly elected members should be based upon those traits of manliness and womanliness that are held up as the ideals in the school and in the home for good citizenship, for successful lives, and for the highest spirituality. Indeed, the entire program may profitably be built around the four objectives of the national society: scholarship, leadership, service, and character. Many schools may be interested in putting these charges into a permanent form of ritual.

The program should be dignified and impressive throughout. The school at large will judge the society to a great extent by the

public exercises. Here is a great opportunity to create an enthusiasm for scholarship among those who have not yet been awakened to the importance of a complete development of their powers. On the other hand, those who have been selected for membership should be made to realize that, because of their conspicuous leadership, intellectual achievements, loyalty to high ideals, and nobility of character, they are not to withdraw from the "mass" and form a "class" but that this added honor carries increased obligation, that unusual ability entails extraordinary responsibility, and that they are greatest who serve most.

Will not the explanation of the torch, held high by the arm of youth, the emblem of the national society, be another opportunity to inspire all of the pupils with those ideals that challenge their highest and best powers?

In most of the societies the newly elected members are required to take a pledge of loyalty to the school and the state. The Ephoebian Society of Los Angeles, California, uses the Athenian oath of allegiance to the state, an oath which, familiar though it may be, will bear repetition here, for it indeed expresses the general purpose of this new honor society and the crying need of America:

> We will never bring disgrace to this our city by any act of dishonesty or cowardice, nor ever desert our suffering comrades in the ranks; we will fight for the ideals and sacred things of the city, both alone and with many; we will revere and obey the city's laws and do our best to incite a like respect in those above us who are prone to annul or set them at naught; we will strive unceasingly to quicken the public sense of civic duty. Thus, in all these ways, we will transmit this city not only not less, but greater and more beautiful than it was transmitted to us.

At the Chicago meeting (1922) the council of the National Honor Society approved the form for the charter and ordered it printed at once. The charter fee was fixed at five dollars. At the same meeting an emblem (pin or button) was approved. The council voted to submit the design to several pin manufacturers, and a committee was appointed to select the lowest reliable bidder and to get these emblems delivered as soon as possible. Old gold was chosen as the society's color.

At the meeting of the National Association of Secondary School Principals the council was requested to prepare a ritual for the

initiation exercises. Members of the council (Edward Rynearson, president; H. V. Church, secretary) would like to receive suggestions from all who see the possibilities of these exercises or who are now using an inspiring ritual.

CONSTITUTION OF THE NATIONAL HONOR SOCIETY OF SECONDARY SCHOOLS

ARTICLE I

Name and Purpose

SECTION 1. The name of this organization shall be the National Honor Society of Secondary Schools.

SEC. 2. The purpose of this organization shall be to create an enthusiasm for scholarship, to stimulate a desire to render service, to promote leadership, and to develop character in the students of the American secondary schools.

ARTICLE II

General Control

SECTION 1. The general control of this organization shall be vested in a National Council.

SEC. 2. The National Council shall consist of nine members selected by the National Association of Secondary School Principals. The secretary of the National Association of Secondary School Principals shall be a member, ex officio.

SEC. 3. The nine elective members shall be chosen for a term of three years, three being chosen annually. Immediately after the first election they shall be divided into three classes for the one-, two-, and three-year terms.

SEC. 4. Five members shall constitute a quorum of the National Council.

ARTICLE III

National Organization

SECTION 1. This organization shall consist of chapters in the secondary schools of the United States, supported by public taxation or endowment, with standards equal to those of schools accredited by such agencies as the North Central Association of Colleges and Secondary Schools, the New England Association of Colleges and Secondary Schools, the Association of Colleges and Preparatory Schools of the Middle States and Maryland, the Association of Colleges and Secondary Schools of the Southern States, etc.

SEC. 2. Each chapter, before its admission to the National Honor Society, shall have its organization approved by the National Council.

SEC. 3. Each chapter shall, for continued membership, conform to all rules of the National Council.

ARTICLE IV

Emblem

SECTION 1. This organization shall have an appropriate emblem, selected by the National Council, and this emblem shall be uniform throughout the United States.

SEC. 2. This emblem shall be copyrighted.

SEC. 3. The distribution of the emblem shall be under the exclusive control of the National Council.

ARTICLE V

Dues

SECTION 1. Each chapter of this organization shall contribute whatever amount may be assessed by the National Council, not to exceed five dollars ($5.00) annually.

ARTICLE VI

Membership

SECTION 1. Members of chapters shall be known as active and graduate.

SEC. 2. Membership in any chapter shall be based on scholarship, service, leadership, and character.

SEC. 3. Candidates eligible to membership in a chapter of this organization shall have a scholarship rank in the first fourth of their respective graduating classes.

SEC. 4. To be eligible for membership the student must have spent at least one year within the secondary school electing such student.

SEC. 5. Not more than 15 per cent of any Senior, or graduating, class shall be elected to membership in a chapter.

SEC. 6. The election of not more than 10 per cent may take place during any semester after the beginning of the seventh semester of secondary-school work in which the standards for election have been attained. The remainder may be chosen during the last semester before graduation.

ARTICLE VII

Electors

SECTION 1. The election of members in each chapter shall be by the faculty, or by the principal and a committee of four or more members of the faculty whom he may select.

ARTICLE VIII

Officers

SECTION 1. The officers of each chapter shall be a president, vice-president, secretary, and treasurer.

SEC. 2. The secretary shall certify to the National Council the number graduated in each class and the names of those elected to membership in the chapter.

ARTICLE IX

Faculty Supervision

SECTION 1. All meetings shall be open meetings and shall be held under the sponsorship of the principal or of some member of the faculty selected by him.

SEC. 2. The activities of the chapter shall be subject to the approval of the principal.

ARTICLE X

Executive Committee

SECTION 1. The Executive Committee shall consist of the officers of the chapter and the faculty sponsor.

SEC. 2. The Executive Committee shall have general charge of the meetings and business affairs of the chapter, but any action on the part of the Executive Committee may be subject to the review of the chapter.

ARTICLE XI

Amendments

SECTION 1. This constitution may be amended at any meeting of the National Council, or by a vote by mail, by an affirmative vote of seven members.

Educational Writings

REVIEWS AND BOOK NOTES

A one-year course in world-history for the high school.—Judging from the high-school texts in the field of general or world-history that have recently appeared, it would seem that the once common general-history course is about to regain its position in the high school. There are now at least seven texts which aim to give high-school students a view of world-history in the short period of one year. Three of these texts have appeared during the past year; two have been revised recently; and the two remaining texts date back to the days of the old general-history course, with the original copyright dates of 1881 and 1899.[1]

In making a comprehensive examination of the available textbooks in world-history adapted to high-school students one finds a wide diversity of opinion as to what a text of this nature should contain. To show the extent of this diversity of opinion, one need but check the various texts with respect to one item, namely, the personages mentioned. An examination of Myers, Colby, Webster, Elson, and Robinson-Breasted-Smith reveals the following general facts relative to personages: A total of 1,257 different persons mentioned in the five books; 400 persons mentioned but one time each; 189 mentioned but twice each; 116, three times; 81, four times; 55, five times; 45, six times; 39, seven times; 27, eight; 24, nine; 130, more than nine and

[1] In the order of first appearance these books are:

A. S. BARNES, *A Brief History of Ancient, Medieval, and Modern Peoples.* Revised to 1911 by Steele and Steele. New York: American Book Co., 1881, 1883, 1899, 1909, 1911. Pp. 611.

P. V. M. MYERS, *General History.* Boston: Ginn & Co., 1889, 1906, 1917, 1921. Pp. 711.

F. M. COLBY, *Outlines of General History.* New York: American Book Co., 1899, 1900. Pp. 564.

G. W. BOTSFORD, *A Brief History of the World.* New York: Macmillan Co., 1917, 1920. Pp. 540.

J. H. ROBINSON, J. H. BREASTED, and E. P. SMITH, *A General History of Europe.* Boston: Ginn & Co., 1921. Pp. 667.

HUTTON WEBSTER, *World History.* Boston: D. C. Heath & Co., 1921. Pp. 730.

HENRY W. ELSON, *Modern Times and the Living Age.* New York: American Book Co., 1921. Pp. 727.

less than thirty; 46, more than twenty-nine and less than fifty; 28, more than forty-nine and less than one hundred; and 14, one hundred or more times. From these facts it is seen that in the case of at least 786 of the 1,257 persons mentioned in all of the texts under discussion there is little or no agreement. Speaking generally, one is justified in saying that many persons in world-history considered important by one author of a textbook in this field may not be even mentioned by another author.

While disagreement is the distinguishing feature in the textbooks under discussion, there is a certain amount of agreement. For example, Napoleon is mentioned by each author more often than any other person. The agreements and disagreements in this respect are well shown in the accompanying table, which contains complete data on each person mentioned forty-five or more times in the five texts.

The facts revealed in the table are of more than passing concern to those interested in a world-history course on the senior high school level. Of the first forty-two persons listed in the table, at least twenty-three are now known more for their activities in war than for their activities in peace. Furthermore, with but three or four exceptions each person on the list was connected more with governmental affairs than with other necessary phases of life. Certain other interesting facts are revealed by the table: (1) There is complete disagreement on the importance of certain individuals in the history of the world. For example, Bismarck is mentioned but one time in Colby's book and a total of 105 times in the other four books. Similar disagreements are noted with respect to Frederick the Great, James II, Napoleon III, Darius, Pericles, Frederick II, and Octavius. (2) Close agreement is found with respect to certain individuals; for example, Napoleon, Caesar, Alexander the Great, Charlemagne, Louis XIV, and Martin Luther. (3) Based on the persons most frequently mentioned, the textbook material now available in world-history is largely of the military and governmental type. This fact is more fully established by the complete data on the 1,257 different persons mentioned in the five texts. Throughout this long list one looks in vain for repeated mention of persons prominent in life other than military and governmental. Outstanding examples of this fact are Charles Darwin, Arkwright, Galileo, Robert Fulton, David Livingstone, Cecil Rhodes, Buddha, Confucius, John Locke, John Milton, and Robert Owen. Not one of these is mentioned as many as nine times in all of the books combined.

Another matter of supreme importance in a course in world-history is that of organization for teaching purposes. In respect to this matter the texts under discussion differ widely. For example, Webster has no general organization of the whole field other than chapters co-ordinately and chronologically arranged. Colby organizes his discussion around five large headings as follows: ancient history, Greece, Rome, medieval history, and modern history. Elson makes use of twelve large divisions; Myers, five; and Robinson-Breasted-Smith, ten.

PERSONS MENTIONED FORTY-FIVE OR MORE TIMES IN FIVE WORLD-HISTORY TEXTS AND FREQUENCY OF MENTION

Persons	Robinson-Breasted-Smith	Webster	Elson	Colby	Myers	Total
Napoleon	123	148	113	84	164	632
Caesar	36	23	69	46	74	248
Alexander the Great	53	34	52	30	46	215
Charlemagne	40	32	34	63	36	205
Louis XIV	49	44	23	38	47	201
Martin Luther	55	21	47	41	33	197
Charles V	33	12	23	54	39	161
Philip II	27	21	13	20	59	140
Henry VIII	25	8	21	33	41	128
Queen Elizabeth	30	12	33	25	21	121
Peter the Great	13	20	22	27	32	114
Charles I	24	24	23	15	26	112
Cromwell, Oliver	19	17	42	11	23	112
Bismarck	27	35	19	1	24	106
Hannibal	27	8	34	21	9	99
Pompey	11	11	26	26	18	92
William of Orange	24	10	17	15	19	85
Metternich	15	27	25	6	11	84
Frederick the Great	16	30	21	3	14	84
Augustus	26	14	11	16	17	84
Henry IV	16	4	17	15	21	73
Louis XVI	15	25	13	10	10	73
James I	17	12	24	4	13	70
James II	12	12	13	25	8	70
Napoleon III	18	26	9	13	3	69
Darius	7	19	12	15	15	68
Mohammed	8	13	9	18	17	65
Pericles	13	1	20	14	16	64
Mary (William and)	26	4	19	5	9	63
Cavour	6	21	18	7	9	61
Frederick II	20	.....	1	22	17	60
Charles II	14	11	8	13	9	55
Octavius	.....	.....	13	16	25	54
Robespierre	4	7	15	15	12	53
Sulla	11	7	.....	13	21	52
King John	10	1	.....	22	19	52
Pope Gregory VII	.....	.....	15	19	18	52
Philip of Macedon	16	12	18	6	.....	52
Mary (Queen of Scots)	.....	.....	17	17	17	51
Mark Antony	7	3	13	14	14	51
William I	10	17	4	10	9	50
Socrates	13	.....	19	2	16	50
Diocletian	11	4	8	4	22	49
Francis I	4	3	1	30	10	48
Philip Augustus	8	.....	5	25	10	48
Cyrus the Great	9	3	3	20	12	47
Gladstone	2	13	23	3	6	47
Henry II	13	1	13	19	1	47
Marius	9	8	.....	16	13	46
Constantine	7	4	10	8	17	46
Louis Napoleon	1	14	9	12	9	45

The general organization of world-history for teaching purposes is a very important matter, inasmuch as the field covered is so extensive. Some text-book writers have recognized this fact; others have not. Webster, for example, makes no attempt at a general organization, while the texts by Elson, Myers, and Robinson-Breasted-Smith contain general organizations which the teacher could follow if he so desired.

Before one can criticize favorably or unfavorably the general organization for teaching purposes of any unit of history, one must set up certain criteria for judging such an organization. In another connection the writer mentions four such criteria:[1] number of large divisions; name of each division; date boundary of each division; and the percentage of time to be allotted to each division. One might profitably add another item, namely, the four or five topics to be included under each main division. For practical purposes it will be well to consider each of these criteria in its relation to a course in world-history.

The names, number, and date boundaries of the main divisions of the field are phases on which one can profitably put a great deal of thought. The name of the division must suggest its outstanding characteristics. In other words, the name must tell what is to be taught and emphasized in the division. The names of the various divisions must also be co-ordinate both in form and in content. This type of co-ordination will necessitate that the main divisions be co-ordinate one with the other. In other words, one division cannot be named "The Middle Ages" and a co-ordinate one, "Civilization during the Middle Ages," because the second topic is subordinate to, rather than co-ordinate with, the first topic. An example of a lack of co-ordination in naming topics is found in the Robinson-Breasted-Smith text, where two co-ordinate divisions are called "The French Revolution and Napoleon" and "The Twentieth Century and the World-War." The expression "The Twentieth Century" is not co-ordinate in meaning with the expressions "The French Revolution" and "The World-War."

The date boundaries of each large division are closely related to the name. If a division is properly named, its length is at the same time approximately fixed. This fact is illustrated in the name "Civilization during the Middle Ages." If one decides to use this name for the period commonly known as the Middle Ages, one has at the same time settled the matter of approximate date boundaries.

Ideally, the number of divisions is determined by the significant developments that took place during the time covered by the entire course. However, exigencies of administration and method of procedure sometimes determine this matter for the teacher. The writer knows of a school where the number of large units of work is determined by the method of procedure in

[1] R. M. TRYON, *The Teaching of History in Junior and Senior High Schools*, p. 217. Boston: Ginn & Co., 1921.

teaching the subject. In this school it has been found by experience that the right number of large units for a year's work is eight or nine. However, where the number of divisions is not determined by something over which the history teacher has no control, there are certain important considerations to be faced before the matter can be settled. In the first place, the content of each division should stand out clearly in the mind of each pupil on completing the course. Taken together, they are to be thought of as the framework of a historical structure built during the year by each member of the class. Thought of in this way, there is, of course, a grave danger of handicapping the student with a large number of topics. On the other hand, if the name is the key that unlocks for the student the historical mysteries of the period, the number of periods should not be too small, because of the perplexities encountered in finding names sufficiently specific to be of any service to the learner.

Another consideration that appears in deciding the number of main divisions is the subsequent teaching use one is to make of them. If the general organization contemplated here is well planned, it at once becomes the foundation stone on which all of the course is built. Chronological order is maintained throughout it; historical personages are located in time by it; the maps worth making are based on it; and the general survey of the whole field is simply an elaboration of it. In view of these important truths, the number of general divisions of a course in world-history becomes a matter of first importance both to teacher and to pupils.

Organizing each main division of a course in world-history is similar to organizing the entire field. In doing this, one must go over the field included in each main division and decide definitely upon the features to be taught and emphasized. It is also necessary in this connection to settle the matter of an appropriate name for each subtopic in each main division. The number of these subtopics to be included in each case has to be determined before one can make much progress in this phase of the work. Inasmuch as these subtopics are to be used by the student as historical guideposts in his study of the period, the number should not be so large as to overcrowd the time allotted.

The percentage of time to be given to each main division should be known by the teacher before he meets his class the first day. The importance of this cannot be overemphasized if the course is to have any semblance of proportion. Furthermore, when one knows on beginning a certain division just how many recitation periods are to be devoted to it, there will be in the teaching of the period a definiteness and a drive which are too often lacking when this fact is known only in a very general way.

Following these general considerations, let us turn to a proposed general organization of the field of world-history for teaching purposes which purports to apply all of the fundamentals of a general organization discussed. The following will illustrate what is meant by four of these fundamentals:

A ONE-YEAR COURSE IN WORLD-HISTORY—GENERAL ORGANIZATION

	Percentage of Total Time
I. Primitive and Oriental Life	7
II. Ancient Greece and Her Civilization	11
III. Rome and the Roman Empire	11
IV. Medieval Life and Institutions (400–1300)	16
V. The Renaissance and the Protestant Revolt (1300–1700)	5
VI. Revolutionary Movements—Political, Industrial, and Social (1700–1850)	18
VII. Nationalism, Democracy, and Nineteenth-Century Expansion (1850–1914)	22
VIII. The World-War and Reconstruction	10

It will be observed that there are eight main divisions in the general organization proposed, four for each semester's work. However, if one wishes to give more time to the modern world than an even division of the eight periods affords, one could include the first five divisions in the first semester's work, as is contemplated in the distribution of time suggested.

An elaborate justification of the names given to the divisions does not seem necessary, since they themselves are in reality their own justification. The main things to be said for the names employed are (1) that they suggest in each case the paramount features of the chronological division over which they extend: (2) that they are co-ordinate both in form and in content; and (3) that they are brief enough to be remembered without difficulty. Using them as guideposts, the teacher ought to be able to conduct his pupils through the long historical road from earliest time to the present with a reasonable amount of ease and certainty.

While the name of each large division suggests in a general way what is to be taught therein, it cannot do all that must be done in the matter of general organization. Before such an organization is complete, the units to be studied in each large division must be deliberately selected and carefully named. To illustrate exactly what the selecting and naming involve, the following outline is submitted:

I. Primitive and Oriental Life
   1. The Earth before the Appearance of Man
   2. Prehistoric Man
   3. Life in Ancient Egypt
   4. The Ancient Civilization of the Near Eastern Asiatic Peoples
   5. The Far East: China, India, and Japan

II. Ancient Greece and Her Civilization
   1. The Aegean and Homeric Ages
   2. The Conflict of the East and the West
   3. Greek Life and Culture in the Periclean Age
   4. Alexander the Great and the Hellenistic Age

III. Rome and the Roman Empire
  1. Early Rome and the Roman Republic
  2. The Conquest of the Mediterranean World
  3. Internal Strife and Revolution
  4. The Age of Augustus
  5. Important Contributions of the Ancient World to Modern Times

IV. Medieval Life and Institutions (400–1300)
  1. The Barbarian Migrations and Charlemagne's Empire
  2. The Feudal Age
  3. Christianity and Mohammedanism
  4. The Crusades
  5. Civilization of the Middle Ages

V. The Renaissance and the Protestant Revolt (1300–1700)
  1. The Renaissance
  2. The Outbreak and Spread of the Protestant Revolt
  3. The Counter-Reformation
  4. The Age of the Religious Wars
  5. Survey of Seventeenth-Century Life

VI. Revolutionary Movements—Political, Industrial, and Social (1700–1850)
  1. The Age of Absolute Monarchy
  2. Struggles for Colonial Supremacy
  3. The Political Revolution in England and America
  4. The French Revolution and the Napoleonic Era
  5. The Industrial Revolution (1760–1830)
  6. The Agricultural Revolution
  7. Political Reaction and Revolution (1815–1848)

VII. Nationalism, Democracy, and Nineteenth-Century Expansion (1850–1914)
  1. National Movements
  2. Colonial Expansion and World-Politics
  3. International Relations (1871–1914)
  4. Autocracy and Democracy (1871–1914)
  5. Advances in Government, Science, Industry, Education, and Religion

VIII. The World-War and Reconstruction
  1. The Causes of the War
  2. The Course of the War to April, 1917
  3. The United States and the War
  4. Peace and Reconstruction
  5. The World Today

Before outlining the several units in each of the main divisions, the teacher should distribute the time to be devoted to each large division among its several subtopics. This distribution will be controlled somewhat by the text in the hands of the pupils and by the library facilities at the teacher's command. For this reason, little specific assistance can be given to the teacher beyond the general outline submitted. The day-by-day outline will of necessity be made by him, because he alone knows all of the things necessary to make a meritorious outline for teaching purposes. Some of these things include the

size and the ability of the class, the textbook in use, the library facilities, and the laboratory supplies. With a knowledge of all of these at his command the teacher will be able to set aside out of the time given to a certain large division an exact amount of time for each unit in this division, and on the basis of this time he will be able to use the text in making an outline of each of these units for teaching purposes. Not until he has done all of this is he ready to teach any one of the large divisions of the course with the preassurance of success that always comes with painstaking and thoughtful preparation.

R. M. TRYON

A guide to the improvement of country life.—Impressed by "the strategic importance of agricultural life in America," a recent writer has prepared a practical guide[1] for the improvement of country life under the leadership of rural teachers, preachers, and progressive farm men and women. The book is a straightforward, sympathetic, accurate description of the country-life problem and is so organized as to provide a suitable basis for discussion in rural teachers' meetings and community gatherings in the interests of public welfare.

Account is taken of the fundamental importance of the rural problem, the contrasts between urban and rural conditions of life, the possibilities and limitations of social surveys of rural communities, the characteristics of such communities, and the problem of the socially defective individual. The second half of the book is definitely constructive and invokes the aid of an imposing array of other forces, economic and social, in encouraging and developing higher standards and nobler satisfactions in country life.

The book makes its strongest appeal to progressive rural-school teachers. To prevent the mistakes of ill-considered enthusiasm, however, frequent common-sense warnings are given. In particular, the well-formulated questions at the end of each chapter provide a good device for checking up any local situation. There are also helpful charts, maps, and bibliographies. This is a good book for reading-circles and teacher-training classes.

The author shows the intelligence and sympathy needed to enlist the interest of the up-to-date farmer and, in general, strikes a note of optimism. Many farmers' wives, too, will appreciate the author's championship of their cause. Only in the chapter on the socially defective individuals in rural communities does the author betray the bias of the specialist and lose his intimate touch with his farmer audience.

There is definite recognition of the part to be played by the preacher in the development of the rural community. The church is recognized as indispensable. The author puts too great faith, however, in the future development of the community church. The public school, as the author recognizes,

[1] LLEWELLYN MACGARR, *The Rural Community*. New York: Macmillan Co., 1922. Pp. xiv+239.

is the logical agency for inculcating a community spirit. The social emphasis of this and similar books should not, and will not, prevent a healthy individualism among American farmers.

O. A. TINGELSTAD

The teaching of general science.—Every new subject that is brought into the high-school curriculum has to overcome two handicaps. It is usually opposed by the adherents of the older subjects with more or less vehemence, and it is invariably poorly taught because teachers have not been trained to handle the subject prior to its appearance on the teaching program. General science is no exception to the rule; hence it has retained a place upon the program with considerable difficulty. Better teaching of the subject is needed in order to make it more valuable in the education of adolescent pupils. It was for the purpose of securing better teaching through bringing about a better understanding of the spirit and meaning of the general science movement that Mr. Eikenberry wrote his book.[1] The point of view that the reader should keep constantly in mind is set forth in the following paragraphs from the author's Preface:

> The most extensive experiment in science teaching now in progress is represented by the general-science movement. The present volume is presented as an interpretation of this experiment. It is an attempt to show the character of science teaching, its relation to the established sciences, and its place in the new science of education. It is hoped that the teacher, principal, or superintendent who is interested in general science will be able to find something of its spirit and meaning in this book.
>
> The book is not a manual of classroom methods. For information upon this subject and the related subjects of equipment and teaching-devices the reader is referred to the several excellent works on the teaching of the several special sciences, on the teaching of science in general, and the many books upon classroom procedure [p. x].

The author approaches his task by presenting some historical considerations which help to give the reader a conception of the spirit of the movement. He gives a brief criticism of the teaching of science and points to possible roads toward reform. The objectives in science teaching and the objectives in general-science teaching are given in detail. The author's point of view on the adjustment between general and special science is important to note in understanding his interpretation of the meaning of the movement. It is as follows:

> The adjustment between general science and special science must be made by the latter building upon what foundation the former lays, rather than by any attempt to prescribe that certain materials shall be used for preparatory reasons [p. 68].

Helpful discussions are given on general science and method, the subject-matter of the general-science course, and principles and examples of organiza-

[1] W. L. EIKENBERRY, *The Teaching of General Science.* Chicago: University of Chicago Press, 1922. Pp. xiii+169. $2.00.

tion. The qualifications of general-science teachers are presented, with a discussion of the possibilities of securing the necessary training in different types of educational institutions. A helpful feature of the book is the amount of reference material given at the close of each chapter and at the end of the book.

This book will undoubtedly be of great value to all persons who are interested in the teaching of general science. It should be of equal value to the teachers of special sciences in giving them the spirit and meaning of the general-science movement, and this applies to teachers in colleges and universities as well as to secondary-school teachers.

H. W. NUTT

New social-science material.—Perhaps partly because of the war, there has developed a tremendous interest in matters of citizenship and training in citizenship and with it a corresponding emphasis on the social studies. Various committees have been appointed, have met, and have advocated radical changes in all courses relating to these sciences. Educational theorists have asked that the social aspects be emphasized in the teaching of all of the courses in the public-school curriculum. In spite of the agitation the movement has resulted in little change in the courses offered in our schools. The reason is not far to seek. Practical school men say that it is impossible to present the courses asked for with the available textbooks, and that if the books were supplied it would still be necessary to train a group of teachers to present the subjects from the new point of view.

It is encouraging to note, therefore, that textbook writers are making an attempt to embody at least some of these ideas in new books. One writer says that "the course of civics study should be shaped so that it will provide the key to useful community service and to wise participation in public affairs." The material in the text[1] is divided into five parts: "Citizenship," "The Nation," "The State," "The Local Community," and finally, "The Parties." The purpose of this grouping is to make possible an arrangement of the work in a different sequence if the local conditions so dictate. The frank treatment of the parties and how party rule is carried on is another departure from the usual text, which avoids the question wherever possible. In his suggestions to teachers the author shows how the investigation of civic problems can be carried on by the pupils and reported in class, the students thereby learning to do by doing. The book is pleasingly gotten up; the illustrations are interesting, and the material is well written. It should be a good text in the hands of a good teacher.

ERNST E. WELLEMEYER

[1] JOHN B. HOWE, *New Era Civics*. Syracuse, N.Y.: Iroquois Publishing Co., 1922. Pp. x+420.

The junior high school at work.—In the educational literature of recent years one finds a great deal of theoretical discussion of the junior high school movement. This theoretical discussion has served a real purpose in defining and clarifying the nature, scope, and aim of this new theory in school organization. However, school administrators have long felt a need for a discussion of the junior high school idea based on an attempt actually to work out this idea in some thoughtful way over a period of years.

This need seems to be met in a recent publication.[1] Since 1915, Teachers College has been conducting the Speyer Experimental Junior High School. On the basis of the experiences gained through the years of experimentation Mr. Van Denburg has written his book. The experiences are evaluated in the light of the best educational theory. In the author's own words the book is an attempt to apply theory "to the actual administration and operation of the school and classroom." The discussions are based on what "is either actually being accomplished, or at least is being honestly attempted in the various classes of Speyer School" (p. 5).

Several chapters are devoted to the curriculum of the junior high school. The constructive treatment of the major and minor lines along which the curriculum is built constitutes a real contribution to the literature on curriculum-building. The major functions which the author feels that a junior high school curriculum should serve are well summarized in the following paragraph:

> Our first problem is to select for study such work as will be necessary and useful at the very time it is acquired in helping the pupil to find himself. In addition to its present value, however, the subjects of study must be necessary and useful for understanding the new work that lies just ahead. Finally, if our subjects of study are really to fill our requirements, they must have in them elements that will be necessary and useful to the pupil many years after he has studied them in school [p. 75].

Two chapters are given to a very adequate and timely discussion of the use made of psychological and school tests in the prognosis of capacity to learn and in the classification of children into homogeneous instruction groups. The nature of the remainder of the book can be gathered from an inspection of the titles of some of the chapters that have not been referred to: "Teaching Pupils to Study Alone," "The Project Method of Instruction in the Junior High School," "The Socialized Recitation in the Junior High School," "Field Work in All Junior High School Subjects," and "Written Examinations and Recognition Tests."

WALTER S. GUILER

MIAMI UNIVERSITY

Elementary textbook on economics.—There is general agreement that some knowledge of the economic aspects of community life is necessary for all citizens. There is less agreement as to when the study of economics should begin. For

[1] JOSEPH K. VAN DENBURG, *The Junior High School Idea.* New York: Henry Holt & Co., 1922. Pp. 423.

the student who will not receive a high-school education the study of economics must begin in the last three grammar grades or in the junior high school. It is therefore necessary that the school be supplied with material that may be profitably used in these grades.

The purpose of a recent writer on economics[1] has been to present in simple and direct form what the high-school student, the future citizen, should know about economics. The book is intended for use as a textbook in beginning courses, the object being not only to give instruction in economic principles but also to apply the theory to everyday affairs.

The twenty-two chapters of the book are devoted to discussions of such subjects as "Competition and Monopoly," "Value and Price," "Money," "Banking," "Insurance," "Savings and Investment," and "Taxation."

In presenting the material the author uses the following plan. Each chapter is preceded by an assignment for the preliminary gathering of local data which might be termed a community survey of the subject under consideration. Following this the author discusses each of the main topics of the subject. At the close of the chapter he gives a list of questions which the student should be able to answer and suggests further readings. For instance, chapter xix, dealing with taxation, starts with the following assignment:

1. Make a list of all kinds of taxes collected and the amount received from each source in the community for local purposes.
2. What property is not taxed?
3. How is property assessed?
4. How are taxes collected? [p. 291].

The author then discusses the main topics of the subject, namely, income taxes, excise taxes, tariffs, inheritance taxes, licenses, poll tax, special assessments, the basis of fair taxation, effect of taxation on business, public debts, proposed changes in taxation, taxation as social control, and shifting and incidence. A list of nineteen questions and five references is then presented.

The book is written in language easily understood by students of the junior high school. The subjects discussed should interest the students if the teacher will connect them with their activities by following out the preliminary assignments.

JAMES VAUGHN

An encyclopedia for home and school.—One is constantly aware of the need for works of reference which are neither too technical to be of service to children and to adults of meager educational training nor too "popular" in their make-up to give the assurance of reliability. The publishers of a recently issued encyclopedia[2] have sought to meet the demand for such material both

[1] JOHN A. LAPP, *Economics and the Community*. New York: Century Co., 1922. Pp. v+366.

[2] *Compton's Pictured Encyclopedia*. Chicago: F. E. Compton & Co., 1922. Vols. I–VII.

in the home and in the school by securing the services of an editorial staff of recognized authorities in the fields of their specialties to insure accuracy and breadth of view, and by giving special consideration to methods of presentation of all types of material for the sake of interest and simplicity of treatment.

Appearing opportunely within so short a time after a war of revolutionizing effect upon almost every phase of human life and knowledge, the work gives evidence of careful consideration of the latest developments along all lines of endeavor and has the freshness and appeal of new facts interestingly presented.

Two features of the material make these volumes especially attractive as a work of reference. These are the organization of the material, together with devices to facilitate the use of the volumes, and the unusually interesting and significant illustrations in which each volume abounds.

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